PROPOSED REVISED CLOSURE PLAN
HAZARDOUS WASTE MANAGEMENT FACILITY

GENERAL MOTORS CORPORATION
DELCO CHASSIS DIVISION, HOME AVENUE OPERATIONS
(FORMERLY DELCO PRODUCTS)
DAYTON, OHIO

JANUARY 28, 1993
JOB NO. 00299-198-122

DAMES & MOORE

Delco Chassis Division
General Motors Corporation
2701 Home Avenue
Post Office Box 1224
Dayton, Ohio 45401-1224
513-455-5000

July 19, 1993

Mr. Michael Galbraith
U.S. EPA, Region V
RCRA Permitting Branch
Ohio Section (HRP-8J)
77 West Jackson Boulevard
Chicago, IL. 60604

RE: RCRA CLOSURE PLAN SUBMITTAL; GM, DELCO CHASSIS; OHD000817023

Dear Mr. Galbraith,

Per your request dated June 30, 1993, please find enclosed the approved CLOSURE PLAN for the Delco Chassis Division, General Motors Corporation- Home Avenue facility.

Delco Chassis received the approval of the CLOSURE PLAN from the Ohio EPA on May 10, 1993. Delco Chassis has received it's last volume of hazardous waste into this unit on July 2, 1993 and we expect the disposal of this hazardous waste during the first weeks of August 1993. After further dicussions with Mr. Patrick Willoughby, Ohio EPA Southwest Distric Office, on the timing for this CLOSURE PLAN, Delco will begin the final phases of this CLOSURE PLAN during August/September 1993. Delco anticipates submittal of "CERTIFICATION OF CLOSURE" during October 1993 if not sooner.

If you have any questions, please feel free to call me at 513/455-8491. Thank you.

Sincerely,
Delco Chassis Division
General Motors Corporation
Home Avenue Facility

G. Brent Lange

G. Brent Lange
Sr. Environmental Engineer

ENCLOSURE TO USEPA ONLY

cc FILE
Pat Willoughby, OEPA SWDO
Kay Berner, DELCO
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January 28, 1993

Ohio Environmental Protection Agency
Division of Solid and Hazardous Waste Management
P.O. Box 1049
1800 WaterMark Drive
Columbus, OH 43266-0149

Attention: Mr. Donald R. Schregardus
Director

Gentlemen:

Re: Responses to NODs
RCRA Closure Plan
General Motors Corporation
Delco Chassis Division,
Home Avenue Operations
(formerly Delco Products)
OHD 000 817 023

On behalf of General Motors Corporation, Delco Chassis Division, Home Avenue Operations (formerly Delco Products), Dames & Moore is transmitting a modified RCRA closure plan. The facility will be referred to as Delco throughout the closure plan. The modifications have been prepared in response to the State of Ohio Environmental Protection Agency (OEPA) notice of deficiency dated November 23, 1992 and additional comments from an OEPA audit of closure plans transmitted to Delco at a meeting with Ohio EPA, South West District Office (SWDO) on January 7, 1993. As requested in the letter, the closure plan has been revised with the following edition protocol:

1. Old language is over-struck
2. New language is capitalized
3. Page headers indicate date of submission
4. If significant changes were made, pages were renumbered, table of contents revised accordingly

In addition, presented below is an item-by-item response to each OEPA comment. The agency comments are presented in bold typeface followed Delco's responses in plain type face.

NOTICE OF DEFICIENCIES (LETTER DATED NOVEMBER 23, 1992)

General Comments

1. ***The closure plans should be revised to include a brief description of the names of the permits to accompany the list of "Other Environmental Permit" listed on page I-8 of the closure plan.***

The closure plan has been revised to include a brief description of the names of the permits to accompany the list of "Other Environmental Permit" in Section I.1.7.

2. ***Due to the fact that the closure plan is reviewed and approved/disapproved based on procedures and materials proposed and utilized in the closure plan, the closure plan must provide the information listed on page I-10, "Equipment/Structure Decontamination".***

Based on conversations with SWDO, it was agreed that the specific details of the information listed on page I-10, "Equipment/Structure Decontamination" are dependent on the contractor. However, additional information has been provided regarding the general procedures and materials that will be used during decontamination of the container storage pad and tanks. This discussion is given in Section I.2.3.1 "Equipment/Structures Decontamination". This section describes the general procedures used to decontaminate the container storage pad and tanks. Additionally, decontamination procedures for reusable equipment (e.g., pumps, hoses etc.) that come in contact with a regulated unit have also been described. The disposal of decontaminated fluids and the polyethylene sheeting is discussed in Section I.2.3.2. All disposal equipment (e.g., broom buckets and rags) will be managed as hazardous waste as discussed in Section I.2.3.3.

General Closure Requirements

3. ***Closure Performance Standards***
OAC 3745-66-11

The storage capacity of the drum storage area listed in the closure plan conflicts with the storage capacity listed in the Part 'A' permit on file in our office and the Part 'A' submitted with the Part 'B' application. The closure plan must include the correct maximum capacity and the correct usable capacities for all hazardous waste management units undergoing closure.

As discussed with SWDO, the correct maximum capacity for the hazardous waste storage area is 228 drums. Since the facility has annually been reducing its waste streams, the existing storage of drummed waste does not exceed 112 drums at any given time. To obtain an accurate description of the hazardous waste activity at the site, the closure plan has included the historical use of both the container storage and tank units. A clarification of the correct maximum and the correct usable capacities of the container storage area have been added to Section I.1.5.2. The Part A will be modified and submitted to the Agency to reflect the changes.

Closure of Tank System and Container Storage Area

4. ***Detailed Description of Tank System Closure***
OAC 3745-66-12(B)(1); 3745-66-97(A)

During the May, 1992 RCRA inspection, it was stated that the hazardous waste storage tank has not been used for the storage of hazardous waste for some time. The closure plan must include:

* ***when the tanks were last used;***
* ***how they were cleaned;***
* ***etc.***

As was correctly stated in the May 1992 RCRA inspection, the hazardous waste storage tanks (7,000 gallon storage and 500 gallon mixing tank) have not been used for storage of hazardous waste since 8/3/90. This information has been added to Section I.2.1.2 of the closure plan. During closure the tanks will be triple-rinsed and the rinsate tested to demonstrate that clean closure has been achieved.

5. ***Estimate of Maximum Waste Ever Stored***
OAC 3745-66-12(B)(3)

The closure plan must be revised to include the estimated maximum storage of hazardous waste that has occurred over the life of each of the hazardous waste management units that are undergoing closure.

As discussed and agreed with by SWDO, the estimated maximum quantities of hazardous waste that has historically been stored (since 1985-1991) in the hazardous waste management units undergoing closure has been summarized in Table I-1 with a written description provided in Section I.1.5.1. Table I-1 gives a brief description of the waste stream, its associated hazardous waste constituents, U.S. EPA ID Number and maximum quantity historically stored. The table identifies historical waste streams for both the container storage and tank units.

It is anticipated that minimal quantities of the following waste streams will be present in the container storage area at the time of closure: ignitable wastes (D001) and waste solvents (F001, F002, F003, F005). As discussed earlier, the tanks for storing and mixing hazardous waste have not been used since 1990.

6. ***Detailed Description of Removal of Hazardous Waste Inventory***
OAC 3745-66-12(B)(3); 3745-66-14

a) ***The closure plan must include a detailed description of the interim storage area to be utilized by the facility while undergoing closure of the hazardous waste storage pad.***

b) ***The closure plan must indicate that all Land Disposal Restriction (LDR) requirements will be complied with.***

Discussion of the interim storage area that will be utilized by the facility while undergoing closure of the hazardous waste storage pad is given in Section I.2.2. This section also indicates that Delco currently complies with all land disposal restrictions (40 CFR 268 and OAC 3745-59) and will continue to do so during inventory removal and disposal of any hazardous waste generated during closure.

7. ***Criteria for Determining Extent of Decontamination Necessary OAC 3745-66-12(B)(4); 3745-66-14***

   a) ***The closure plan must provide a description and map of where the soil samples will be taken from. This information should include both the hazardous waste drum storage area and the hazardous waste storage tank.***

   b) ***The closure plan must provide a detailed description and map for all of the background soil sample locations.***

Based on discussion with SWDO, it was agreed that the closure of the Delco facility does not necessitate soil sampling given that there are no pathways to natural soils around the container storage pad and yearly RCRA inspections confirm the structural integrity of the pad. Additionally there have been no reports of spills at the site. If any spills from the pad had occurred, the spills would have been contained in the trench surrounding the container storage area. Therefore locations of soil and background samples have not been included in the report. However, if visual inspection during closure indicates that the integrity of the pad is questionable or that existing cracks or patches pose the potential of hazardous waste release into the environment, soil sampling will be conducted to ensure that clean the closure has been achieved. Prior to soil and background sampling, SWDO will be notified of the location of soil and background samples. This general description of soil and background sampling if required has been included in Section I.2.5.1.

8. ***Detailed Description of Decontamination Steps OAC 3745-66-12(B)(4); 3745-66-14***

   a) ***The closure plan lists on Page I-16, the EP Toxicity analysis as one of the analyses to be performed. The closure plan should be revised to replace EP Toxicity with TCLP.***

   b) ***The closure plan indicates on Page I-11 that, "All routes of runoff from the pad are sealed to prevent possible migration." The closure plan must provide more information on how the pad will be sealed.***

All reference to EP Toxicity have been revised in the closure plan. Additionally the comment on page I-11 has been removed and a section clarifying the

decontamination procedure has been added (Section I.2.3.1). The pad will not be sealed. However the decontamination area will be clearly delineated through the use of polyethylene sheet floor and side wall if necessary to prevent splashing of the rinsate outside the area of contamination.

9. Procedures for Cleaning Equipment and Structures and Removing Contaminated Soil
OAC 3745-66-12(B)(4); 3745-66-14

The closure plan must provide a detailed description of the removal and disposal of all contaminated soil.

It is not anticipated that contaminated soil will be encountered during closure since soil sampling to certify clean closure has not been deemed necessary for this site. However if soil sampling is required and contamination is encountered during closure, Delco will amend the closure plan. Based on the amended plan, if soil removal is required, the general description given in Section I.2.3.4 will be used to characterize, remove and dispose the soil. The specific procedures for soil removal will be dependent on the contractor.

ADDITIONAL COMMENTS FROM OEPA AUDIT OF CLOSURE PLANS (TRANSMITTED TO DELCO ON JANUARY 7, 1993).

Additional Comments

10. The closure plan only mentions SW-846 testing methods. Specific test method numbers for each hazardous constituent of concern should be included in the closure plan.

The test methods numbers for each the 40 CFR 261 Appendix VIII and 264 Appendix IX hazardous constituent identified for each hazardous waste stream historically stored in the hazardous waste units has been summarized in Table I-2 and a general discussion given in Section I.2.5.2. The rinsate from both the storage and tank units will be analyzed using the described test methods to certify clean closure. If soil sampling is required, the same methods will be used to analyze for the hazardous constituents in order to certify that clean closure has been achieved.

11. ***The closure plan states that USEPA and Ohio EPA will be notified 60 days prior to the proposed change in the facility or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan. This is true for a proposed closure plan; however, if an unexpected event occurs during the partial or final closure period, the closure plan shall be amended no later than 30 days after the unexpected event.***

The section "Administrative Procedures" has been revised to indicate that the closure plan will be amended no later than 30 days after an unexpected event. Additional clarification to this section has been added (see pages I-2 and I-3).

12. ***A clear statement of the type of "clean" closure was not included in the closure plan. The closure plan must state whether background (for metals), MDL (for non-naturally occurring compounds), or a risk assessment will be used for closure. The closure plan stated, if soil contamination exists, an amended closure plan will be submitted where "the soils will be considered clean when it meets the higher of the following:***

- ***Health/Risk based levels***
- ***Background***
- ***Practical Quantitation Limits (PQL's)***

Note PQL's are not an acceptable clean level, MDLs are used instead.

The criteria for clean closure for the Delco facility will be certified based on rinsate analysis using the criteria outlined in Section I.2.5.3. It is not anticipated that soil sampling is required in order to certify clean closure. However if this is the case, clean closure for non-naturally occurring compounds will be based on MDLs and for metals (e.g., D007 and D008) based on background levels. If soil contamination is determined through beneath the pad soil sampling, Delco may amend the closure plan to certify clean closure based on acceptable risk level.

For any questions or comments concerning the enclosed plan or the above responses, please call Mr. Brent Lange of Delco at (513) 455-3081 or the undersigned at (513) 651-3440.

Very truly yours,

DAMES & MOORE

Linda E. Edwards
Associate

Nalni Dhar
Project Regulatory Analyst

LEE/ND:GM(3)/122mh
00299-198-122

copy: P. Willoughby - OEPA-SWDO

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Appendix

CLOSURE PLAN CHECKLIST
CONTAINER STORAGE AND HANDLING UNITS
TANK STORAGE AND TREATMENT UNITS

Subject Requirement	Part 264/265	Provided	Not Applicable	Comments
1. FACILITY DESCRIPTION	264.111/265.111			
1.1 General description (e.g., size, location)		Page I-4	_____	_____
1.2 Topographic map		Figure I-1	_____	_____
1.3 List of other HWM units and wastes handled in each		Page I-4 - states there are no other HWMU units		
1.4 Hydrogeologic information: •ground water and soil conditions •ground water monitoring systems •corrective actions		Page I-5 - states hydrogeologic information not applicable to tanks and container storage areas		
1.5 Container storage unit description:		_____	_____	_____
•wastes managed (EPA hazardous waste numbers and quantities)		Page I-6, Table 1	_____	_____
•Capacity: number and size of containers		Page I-6	_____	_____
•Storage area design and ancillary equipment (including layout sketch)		Pages I-7 & I-8, Figure I-3, Figure I-4		
•Secondary containment design		Pages I-7 & I-8, Figure I-3, Figure I-4		
1.6 Tank system description:				
•wastes managed (EPA hazardous waste numbers and quantities)		Page I-6, Table I-1	_____	_____
•Capacity: type, number and size of tanks		Page I-8	_____	_____
•Tank area design and ancillary equipment (including layout sketch)		Page I-8 thru I-10, Figure I-3, Appendix I-1		
•Secondary containment design and leak detection system design		Page I-8 thru I-10, Figure I-3		
1.7 References to other environmental permits (NPDES, UIC, TSCA)		Pages I-9 thru I-12	_____	—
1.8 Anticipted waivers or exemptions		Not anticipated as stated on Page I-12.		
2. CLOSURE PROCEDURES				
2.1 Estimates of maximum quantity of inventory (by waste type) to be removed:	264.122(b)(3)/265.112(b)(3); 264.178			

CLOSURE PLAN CHECKLIST
CONTAINER STORAGE AND HANDLING UNITS
AND TANK STORAGE AND TREATMENT SYSTEMS

Subject	Requirement	Part 264/265	Provided	Not Applicable	Comments
2.1.1	In Containers:				
	•Containers		Page I-11		
	•Bulk wastes			None anticipated	
	•Residues			None anticipated	
	•Empty containers				
2.1.2	In Tanks:				
	•Pumpable wastes in tanks		Page I-12	None anticipated	
	•Residues in tanks			None anticipated	
	•Contaminated containment liquids			None anticipated	
2.2	Procedures for container storage and tanks removed inventory (address quantities, waste types, methods):	264.112(b)(3)/265.112(b)(3); 264.178			
	•Onsite treatment			Will not occur	
	•Onsite disposal			Will not occur	
	•Transportation distance offsite				
	•Offsite treatment				
	•Offsite disposal		Pages I-13 & I-14		
2.3	Procedures for decontamination and/or disposal:	264.112(b)(4)/265.112(b)(4); 264.114/265.114; 264.178			
	•Equipment/structures decontamination (address sampling protocol) containers		Pages I-14 thru I-18, sampling presented in Section I.2.5.1		
	•Equipment/structures decontamination (address sampling protocol) tanks		Page I-18, sampling presented in Section I.2.5.1		
	•Cleaning agent/rinsewater treatment or disposal (address quantities, waste types, and methods):				
	-onsite treatment/disposal			None anticipated	
	-offsite treatment/disposal		Pages I-18 & I-19		
	•Equipment/structure demolition and removal (address quantities and methods):				
	-onsite treatment/disposal		No demolition will occur as stated on Page I-19		
	-offsite treatment/disposal		No demolition will occur as stated on Page I-19		
	•Contamintaed soil removal:				
	-list or sketch of potentially contaminated areas		Contaminated soil is not anticipated; however, soil sampling will be conducted as described in Section I.2.3.4		

CLOSURE PLAN CHECKLIST
CONTAINER STORAGE AND HANDLING UNITS
AND TANK STORAGE AND TREATMENT SYSTEMS

Subject	Requirement	Part 264/265	Provided	Not Applicable	Comments
	-estimated amount of contaminated soil to be removed (address sampling protocol)			X	
	-soil removal methods			X	
	-onsite disposal			X	
	-offsite disposal			X	
2.4	Description of security systems:	264.14(b) and (c)/			
	•Posted signs and 24-hour	265.14(b) and (c) surveillance system	Page I-21		
	•Fence or natural barrier		Page I-21		
2.5	Closure certification:	264.115/265.115			
	•Activities to be conducted		Pages I-22 thru I-27		
	•Testing and analyses to be performed		Page I-27 thru 28		
	•Criteria for evaluating adequacy		Pages I-28 & I-29		
	•Schedule of inspections		Page I-29		
	•Types of documentation		Page I-29		
3.	CLOSURE SCHEDULE	264.112(b)(6)/265.112(b)(6)			
3.1	Estimated year of closure	264.112(b)(7)/265.112(b)(7)	Page I-30		
3.2	Frequency of partial closures		Page I-30		
3.3	Milestone chart showing time for:		Page I-30		
	•Removal, treatment, disposal or inventory	264.113(a)/265.113(a)	Page I-30		
	•Decontamination equipment/structures		Pag I-30		
	•Equipment, structures demolition and soil removal/disposal		Page I-30		
	•Total time to closure	264.113(b)/265.113(b)	Page I-30		
3.4	Request for extension to deadlines for handling inventory or completing closure	264.113(c)/265.113(c)	Page I-31		

MODIFIED CLOSURE PLAN

~~In accordance with Title 40 of the Code of Federal Regulations (CFR) Part 264.111 and 112, 264.178, 270.14(b)(13) and Ohio Administrative Code (OAC) 3745-55-10, -11, and -12, and 3745-50-44(A)(B), a closure plan has been prepared for the hazardous waste management facility (HWMF) at the General Motors Corporation Delco Products Dayton Operations located in Dayton, Ohio. It identifies all steps necessary to close the HWMF at any point during its operating life, or at the end of its intended operating life. Delco Products does not expect to conduct a partial closure of its facility. This plan, therefore, provides for complete closure at any time, with no date of closure anticipated.~~

~~The Supervisor of Environmental Engineering will maintain a copy of the approved closure plan and all plan revisions until certification of closure has been submitted to and accepted by OEPA.~~

The closure methodology for the HAZARDOUS WASTE MANAGEMENT FACILITY (HWMF) includes the following activities:

- Closure preparation, including ~~establishment of a decontamination area, if necessary, and~~ inventory removal.
- VISUAL INSPECTION FOR EVIDENCE OF RELEASES.
- SOIL SAMPLE COLLECTION AND ANALYSES, IF NECESSARY.
- IF NECESSARY, SOIL REMEDIATION, INCLUDING AN OPTION TO IDENTIFY HEALTH-BASED RISK CLEANUP STANDARDS.
- Cleaning the container storage area, tanks, and tank containment area with cleaning solution and high-pressure, low-volume wash and triple rinsing.
- Sampling and analysis to evaluate decontamination.
- Decontamination of equipment used in closure activities.
- Closure certification.
- Request to withdraw Part A ~~and Part B permits~~

CLOSURE PERFORMANCE STANDARD

This closure plan has been prepared in accordance with the closure performance standard specified in 40 CFR 264.111 and OAC 3745-55-11, in that closure will:

- Minimize the need for further maintenance.
- Control, minimize, or eliminate, to the extent necessary to protect human health and the environment, post-closure escape of hazardous material, hazardous constituents, leachate, contaminated runoff, or hazardous material decomposition products to the ground or surface waters or to the atmosphere.

Closure activities will be conducted in such a manner as to protect human health and the environment. All activities will take place on ~~Delco Products Dayton Operations~~ DELCO CHASSIS DIVISION, HOME AVENUE OPERATIONS (DELCO) property which is secured by a chainlink fence and monitored by 24-hour security guards. Access to the closure area will be restricted to authorized personnel only. A health and safety plan will be prepared and implemented for all personnel involved in closure activities. A copy will be maintained at the site at all times during closure.

Closure of the storage units as outlined in this plan is intended to minimize the release of hazardous substances by removing any remaining residues. In addition, rinsewater resulting from cleaning will be disposed of at an appropriate disposal facility.

ADMINISTRATIVE PROCEDURES

~~The approved plan will be amended whenever:~~

- ~~Changes in the operating plans or facility design affect the closure plan~~
- ~~There is a change in the expected year of closure~~
- ~~There are unexpected events during closure that require plan modification~~

~~Any changes to the closure plan will be requested in writing. The request will be submitted to U.S. EPA, Regional Administrator at Region V and to OEPA at least 60 days prior to the proposed change in the facility or operation, or no later than 60 days after an unexpected event has occurred which has affected the closure plan.~~

IN ACCORDANCE WITH 40 CFR 265.112, 270.14(B), AND OAC RULE 3745-66-12, DELCO WILL MAINTAIN A COPY OF THE APPROVED AMENDED CLOSURE PLAN AND ALL REVISIONS TO THE PLAN AT THE PLANT. IT WILL

BE MAINTAINED UNTIL CERTIFICATION OF CLOSURE HAS BEEN SUBMITTED TO, AND ACCEPTED BY, THE OEPA.

THE APPROVED PLAN WILL BE AMENDED WHENEVER THERE ARE UNEXPECTED EVENTS DURING CLOSURE THAT REQUIRE PLAN MODIFICATION.

ANY CHANGES TO THE CLOSURE PLAN WILL BE REQUESTED IN WRITING. IN ACCORDANCE WITH OAC 3745-66-12(C)(2), A REQUEST WILL BE SUBMITTED TO OEPA NO LATER THAN 30 DAYS AFTER AN UNEXPECTED EVENT HAS OCCURRED WHICH HAS AFFECTED THE CLOSURE PLAN.

PLAN FORMAT

The format of this plan follows a checklist "Closure Plan Checklist, Container Storage and Handling Units" and "Closure Plan Checklist, Tank Storage, and Treatment Systems" that appear in U.S. EPA publication EPA/530-SW-87-010, OSWER Policy Directive No. 9476.00-5 as referenced by OEPA Closure Plan Review Guidance. One checklist incorporating the two was prepared and followed for this plan. Repetitive items between the two checklists were not repeated, such as facility description, description of security systems, etc.

Additional sections have been included in the plan format to incorporate requirements described in OEPA Closure Plan Review Guidance and appropriate state and federal regulations.

I.1 FACILITY DESCRIPTION

This section provides a general description of ~~Delco Products Dayton Operations~~ DELCO and its hazardous waste management facility. It has been prepared to acquaint the reviewer with the waste generating processes and to provide a general understanding of site conditions.

I.1.1 General Description

~~Delco Products Dayton Operations~~ DELCO is located on approximately 67 contiguous acres within the city limits of Dayton, Ohio, in Montgomery County, at the following addresses:

2701 Home Avenue Dayton, OH 45417	or	P.O. Box 1224 Dayton, OH 45401

Figure I-1 shows the vicinity of the site. Primary operations at the plant are the manufacture of plastic and rubber automobile components, many of which have metal inserts. The product line includes steering wheels, motor and transmission mounts, weatherseals, brake hose, and liteflex springs. Hazardous wastes are generated in these manufacturing processes from molding, curing, and cementing of rubber and plastics; from painting, cleaning, grinding, and etching processes; and from general maintenance and laboratory activities. The hazardous wastes ~~are~~ HAVE BEEN HISTORICALLY stored in a container and tank storage area (see Figures I-2 and I-3) until they ~~are~~ WERE shipped offsite for final disposal. CURRENTLY, HAZARDOUS WASTE IS ONLY STORED IN THE CONTAINER STORAGE AREA. NO WASTE HAS BEEN STORED IN THE TANKS SINCE 1990.

I.1.2 Topographic Map

A copy of the U.S. Geological Survey topographic map for the plant site and its vicinity is presented in Figure I-1.

I.1.3 List of Other Hazardous Waste Management Units and Wastes Handled in Each

There are no other RCRA hazardous waste management units located at ~~Dayton Operations~~ DELCO.

I.1.4 Hydrogeologic Information

The container storage and tank storage units are not land-based units (landfills, surface impoundments, etc.); therefore, hydrogeologic information is not applicable to this closure plan.

I.1.5 Container Storage Unit Description

I.1.5.1 Wastes Managed

~~The hazardous wastes stored include:~~

- ~~Cements and solvents~~
- ~~Paints, paint solvents, paint sludges~~
- ~~Etching solution for copper~~
- ~~Solvents~~
- ~~Cleaning caustics and solvents~~
- ~~Grinding sludge~~
- ~~Hypalon (coating for latex weatherstrips)~~
- ~~Epoxy resins~~
- ~~Polyol~~
- ~~Isocyanates~~
- ~~Mold release~~
- ~~Curative~~

~~These wastes are classified as:~~

- ~~Wastes that exhibit characteristics of ignitability (D001 U.S. EPA identification number)~~
- ~~Wastes that exhibit the characteristics of corrosivity (D002)~~
- ~~Wastes that exhibit the characteristics of EP toxicity for cadmium (D006), chromium (D007), lead (D008), and silver (D011)~~
- ~~Spent halogenated solvents (F001, F002)~~
- ~~Spent non-halogenated solvents (F003, F005)~~

~~• Isocyanates (U223)~~

~~In reference to the above list, (1) the majority of the wastes are hazardous because of ignitability (D001) and RCRA solvents (F001, F002, F003, F005), and (2) the isocyanates (U223) are accumulated and then sold for reuse.~~

THE HAZARDOUS WASTES THAT HAVE BEEN HISTORICALLY STORED IN THE CONTAINER STORAGE AREA ARE GIVEN IN TABLE I-1. THE TABLE INCLUDES THE FOLLOWING INFORMATION ON EACH WASTE STREAM:

- WASTE DESCRIPTION
- HAZARDOUS WASTE CONSTITUENTS
- U.S. EPA IDENTIFICATION NUMBER
- MAXIMUM QUANTITY STORED (BASED ON HISTORICAL DATA FROM 1985 TO 1991)

IT IS ANTICIPATED THAT MINIMAL QUANTITIES OF THE FOLLOWING WASTE STREAMS WILL BE PRESENT IN THE CONTAINER STORAGE AREA AT THE TIME OF CLOSURE: IGNITABLE WASTES (D001) AND WASTE SOLVENTS (F001, F002, F003, AND F005).

THE WASTES THAT HAVE BEEN HISTORICALLY BULKED INTO TANKS ARE ALSO IDENTIFIED IN TABLE I-1.

I.1.5.2 Capacity

The container storage area has the capacity to store 228 55-gallon drums of hazardous wastes. ~~Of these 228 drums, however, the maximum amount containing liquid hazardous waste is not expected to exceed 112 drums during normal operation.~~ HOWEVER THE STORAGE OF DRUMMED WASTE HAS BEEN REDUCED NOT TO EXCEED 112 DRUMS AND MANY OF THE HISTORICAL WASTE STREAMS HAVE BEEN ELIMINATED. THEREFORE, THE MAXIMUM QUANTITY UNDER WORST CASE SCENARIO AT CLOSURE IS 112, 55-GALLONS DRUMS OF HAZARDOUS WASTE.

I.1.5.3 Container Storage Area Design

The container storage area consists of approximately 3,150 square feet, of which approximately 540 square feet is used for actual storage, 450 square feet is processing area, and approximately 2,160 square feet is aisle space (see Figure I-3). The entire area is a poured concrete slab under a 12-foot-high roof and is protected by a 30-inch-tall concrete berm on all sides but the south entrance. The entire ~~paid~~ pad is surrounded by a 10-inch-wide by 10-inch minimum depth concrete trench to contain runon and/or spilled material. The capacity (minimum) of the containment trench, which totals 242 feet in length, is in excess of 1,260 gallons. The flow from this trench is to a subsurface containment structure with a capacity of 2,000 gallons. This combined quantity (3,260 gallons) is greater than 10 percent of the maximum capacity of the containers (228 drums x 55-gallon/drum x 10 percent = 1,254 gallons) as required in OAC 3745-55-75(3) and 40 CFR 264.175(b)(3).

~~The maximum amount of hazardous liquid waste stored in containers at any one time is not expected to exceed 112 drums during normal operations. The remaining storage area inside the primary containment system is used for storage of reclaimable liquids and non-hazardous waste.~~

~~The drummed waste consists chiefly of ignitable wastes which are to be transferred to the 7,000-gallon waste tank prior to removal in bulk for offsite incineration. The remaining liquid waste storage consists of wastes that are not suitable for placement in the bulk tank, generally because they are too viscous to be pumped or contain excessive insolubles.~~

The material storage area is separated into zones designated for storage of the various hazardous wastes and materials (SEE FIGURE I-4). ~~Surplus materials are stored in the north end of the pad. They are picked up six times yearly, and transported to the buyer's plant. Bulkable wastes are temporarily stored adjacent to the barrel dumper facility until they can be added to the bulk tank~~. Non-bulkable wastes are stored across the main aisle. At the entrance to the HWM pad are two drop areas on the west side of the main aisle. Incoming pallets are deposited in this area until they can be logged in, identified if necessary, and directed to the proper individual storage area. Any drums containing

unknown wastes that must be analyzed are held in the drop area on the east side of the entrance.

Any unusual wastes that are known or are found through analysis to contain wastes that are incompatible with other wastes stored on the pad, are stored in a separate area surrounded by a 5-foot buffer area. Any such incompatible waste will be removed for disposal offsite as quickly as arrangements can be made with an appropriate disposal site.

The remaining storage area includes a row of re-salable iso-cyanates, which is a reactive material. They are kept separate from the ignitable liquids and are sold approximately every 60 days.

I.1.6 Tank Storage Area Description

HISTORICALLY storage of hazardous waste in tanks at ~~Dayton Operations~~ DELCO ~~is~~ HAS BEEN facilitated by two existing tanks: a 500-gallon mixing tank (No. 1) and a 7,000-gallon storage tank (No. 2). The tanks provided storage for a variety of wastes from adhesive and coating operations. Drums containing ignitable wastes ~~are~~ WERE upended by a barrel dumper and emptied into the 500-gallon tank No. 1. Tank No. 1 ~~is~~ WAS used to assess the suitability of the wastes to be pumped and stored in Tank No. 2. After thorough mixing, the contents of Tank No. 1 ~~are~~ WERE pumped into Tank No. 2, the 7,000-gallon bulk storage tank.

The dimensions and capacity of each tank are shown below and in the engineering drawings in Appendix I-1.

	Configuration	Dimensions	Capacity (gallons)	Materials	Specs.
Tank No. 1	Rectangular See Appendix I-1	9' - 6" x 2' - 6" x 2' - 11" deep	500	316 stainless, 11 ga. bottom, 14 ga. walls, w/3 x 3 1/4 stainless angle frame	Machinery's Handbook 16th Edition, p. 418
Tank No. 2	Cylindrical Vertical Dish-Bottom See Appendix I-1	12'-4" straight Side 9'-6" diameter	7,000	5/16" 1020 HRS 56,000-65,000 psi	ASME Fab. Std.

The secondary containment system for the ~~Dayton Operations'~~ DELCO'S hazardous waste tanks ~~is~~ WAS designed, installed, and operated to prevent any migration of waste or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; and capable of detecting and collecting any releases and accumulated liquids until the collected material ~~is~~ WAS removed. The secondary containment system ~~is~~ WAS constructed of concrete. ~~The wastes contained in the tanks are primarily considered hazardous because of ignitability; these wastes are compatible with concrete~~.

The containment system construction consists of a concrete vault with a 6-inch-thick base and 8-inch-thick walls (curbing). This construction ~~is~~ WAS designed, installed, and operated to contain in excess of 100 percent of the capacity of the largest tank, and to be of sufficient strength and thickness to prevent failure due to pressure gradients (e.g., static head and external hydrological forces), physical contact with the waste, climatic conditions, and the stress of daily operation (including stresses from nearby vehicular traffic). The base of the system is capable of providing support to the system and is resistant to pressure gradients (above and below the system), and capable of preventing failure due to settlement, compression, or uplift.

The leak detection system at ~~Dayton Operations~~ DELCO ~~is~~ WAS designed to detect the failure of either the tanks (primary containment) or the secondary containment structure, or the presence of accumulated liquids or any releases of hazardous waste in the secondary containment within 24 hours. The leak detection system employs the operational control of daily visual inspection for releases into the secondary containment system in accordance with OAC 3745-50-10(59) and 40 CFR 260.10.

The secondary containment system is sloped from south to north (a drop of approximately 1 foot over the entire containment vault). Any liquids in the containment system ~~drain~~ THAT DRAINED to and ~~are~~ WERE collected in a containment sump at the low end ~~where they can be~~ WERE removed.

I.1.7 References to Other Environmental Permits

Environmental permits held by the ~~Dayton Operations~~ DELCO include:

AIR PERMITS:

Permit No.:

0857140927B001 - COAL FIRE #4 STEAM BOILER
B002 - COAL FIRE #5 STEAM BOILER
B003 - COAL FIRE #6 STEAM BOILER
~~P001~~
P002 - BOILER ASH HANDLING SYSTEM

0857040928~~P001~~
P003 - M/M PLEB INSERT PREP
P004 - S/W MODEL SHOP/INSERT LAB

~~0857040929P002~~
~~P003~~
~~P004~~
~~P005~~
~~P006~~
~~P007~~

~~0857040930P002~~

0857040931~~P001~~
~~P002~~
P006 - M/M DRILLS, GRINDERS
~~P007~~
~~P009~~
~~P011~~

~~0857040933P001~~
~~P002~~

~~0857040934P001~~

~~0857040936P001~~
~~P004~~
~~P005~~
~~P007~~
~~P010~~
~~P013~~
~~P014~~
R001 - SPRAY BOOTH

085701160R001 - METHODS ENGINEER LAB SPRAY
~~R002~~
P006 - SOFT VINYL COATING

Registration Notification:

~~0857040923P002~~

0857040931P003 - M/M RUBBER FINISH
P004 - MAINTENANCE WOOD FINISH EQUIP
P005 - DRILL & TAP MACHINE
P008 - M/M RUBBER METAL BONDING
P012 - M/M PV BONDING FACILITY #1
P013 - M/M PV BONDING FACILITY #2
P014 - M/M PV BONDING FACILITY #3
P015 - M/M PV BONDING FACILITY #4
P016 - M/M PV BONDING FACILITY #5
P017 - M/M PV BONDING FACILITY #6
F001 - ROADWAYS, PARKING LOTS, DAYTON PLANTS

0857040932~~N001~~
P001 - M/M METAL GRIT BLASTER
P002 - M/M INDUCTION HEATERS

0857040933~~B001~~
P003 - HYGE SLED MODEL SHOP
P004 - CARBON FIBER PILOT LINE
B002 - GAS FIRED STEAM BOILER #10

~~0857040934P002~~

08570935~~B001~~
~~B002~~
P004 - L/S ROTARY TABLE #1
P005 - L/S ROTARY TABLE #2
P006 - L/S ROTARY TABLE #3
P007 - L/S ROTARY TABLE #4
P008 - L/S ROTARY TABLE #5
P009 - L/S ROTARY TABLE #6
P012 - L/S LITEFLEX MD LAB
P013 - L/S COMPOSITE MATERIAL PRODUCT CENTER
P014 - L/S BULK HANDLING
P015 - L/S CREEL ROOM FUME

0857040936P008 - CARBON BLACK STORAGE
P009 - RUBBER MILLS COMPOUNDING
P011 - DANBURY RUBBER MIXERS
~~P012~~
P017 - COMPOUNDING CARBON BLACK SILO

0857041160P001 - GRINDERS, SAW FILTERS
P002 - GRINDERS
P003 - GRINDER STATION
P004 - STATION GRINDER
P007 - S/W URETHANE MATERIAL
P009 - S/W URETHANE MIXING ROOD
P010 - S/W PROTOTYPE MFG. LAB

WATER PERMITS:

1IN00040001 - NPDES WATER PERMITS
1IN00040003 - NPDES WATER PERMITS
1IN00040004 - NPDES WATER PERMITS
1IN00040005 - NPDES WATER PERMITS
1IN00040006 - NPDES WATER PERMITS
1IN00040007 - NPDES WATER PERMITS
1IN00040008 - NPDES WATER PERMITS
1IN00040010 - NPDES WATER PERMITS

I.1.8 Anticipated Waivers or Exemptions

It is not presently anticipated that there will be a need for waivers or exemptions.

I.2 CLOSURE PROCEDURES

The following is a description of the procedures and activities associated with closure.

I.2.1 Estimates of Maximum Quantity of Inventory

I.2.1.1 Container Storage Area

The maximum estimated drum inventory at the time of closure is 112 ~~228~~, 55-gallon drums. No bulk waste or residues are anticipated. This is estimated to be composed of ~~D001, D002, D007, D008, F001, F002, F003, and F005~~ IGNITABLES (D001) AND SOLVENTS (F001, F002, F003 AND F005).

I.2.1.2 Tanks

~~The maximum estimated inventory at the time of closure is 500 gallons in the mixing tank and 7,000 gallons in the second tank. The waste is estimated to be composed of the same waste as listed above for the container storage area.~~

NO HAZARDOUS WASTE HAS BEEN STORED IN THE 7,000 AND 500 GALLON TANKS SINCE AUGUST 3, 1990. THEREFORE, THERE WILL BE NO WASTE INVENTORY IN THE TANKS AT THE TIME OF CLOSURE.

I.2.2 Procedures for Handling Removed Inventory

Waste inventory from the container storage area ~~and tanks~~ will not be treated or disposed onsite. The waste inventory will be removed and disposed by shipping it offsite for recycling, reuse, or disposal in an environmentally acceptable manner at an appropriately permitted facility. ALTERNATELY DELCO MAY CHOOSE TO MOVE THE WASTE TO THE INTERIM STORAGE AREA LOCATED EAST OF THE CONTAINER STORAGE PAD (SEE BUILDING #19 ON FIGURE I-2) AS LONG AS THE WASTE DOES NOT EXCEED 90 DAY STORAGE WHILE ON THE INTERIM STORAGE PAD.

ALL HAZARDOUS WASTE GENERATED DURING CLOSURE WILL BE PLACED IN DOT-APPROVED DRUMS AND STORED IN THE ABOVE IDENTIFIED INTERIM STORAGE AREA FOR LESS THAN 90 DAY STORAGE. ALL WASTES WILL BE SHIPPED OFFSITE AS DESCRIBED BELOW. AFTER CLEAN CLOSURE HAS BEEN CERTIFIED THE DECONTAMINATED CONTAINER STORAGE PAD WILL BE USED FOR LESS THAN 90 DAY STORAGE.

THE U.S. DEPARTMENT OF TRANSPORTATION (DOT) REQUIREMENTS FOR PACKAGING, LABELING, AND MARKING HAZARDOUS WASTES WILL BE ADHERED TO DURING INVENTORY REMOVAL. WASTES THAT ARE SHIPPED OFFSITE WILL CONTINUE TO BE SHIPPED IN DOT-SPECIFIED 55-GALLON DRUMS AND LABELED WITH THE TYPICAL YELLOW HAZARDOUS WASTE LABEL. THE TRUCKS USED FOR OFFSITE SHIPMENT WILL BE CHECKED FOR APPROPRIATE PLACARDS. ANY WASTE RESIDUE GENERATED DURING CLOSURE WILL BE PACKAGED, LABELED, AND MARKED IN ACCORDANCE WITH DOT REGULATIONS. CLOSURE ACTIVITIES HAVE THE POTENTIAL TO GENERATE THE FOLLOWING HAZARDOUS WASTE RESIDUES: RINSATE, CLEANING SOLUTION, POTENTIALLY AND SOIL. IT IS ANTICIPATED THAT RINSATE WILL EITHER BE PLACED IN 55-GALLON DRUMS OR A TANKER TRUCK AND SOIL IF GENERATED IN 55-GALLON DRUMS OR ROLL-OFF BOXES. LABELING WILL BE BASED ON THE RESULTS OF CHEMICAL ANALYSES, AS WILL PLACARDING OF THE TRANSPORTATION VEHICLES.

DELCO CURRENTLY COMPLIES WITH ALL LAND DISPOSAL RESTRICTIONS (40 CFR 268 AND OAC 3745-59) BY INCLUDING A STATEMENT ON EACH MANIFEST WHICH IDENTIFIES THE WASTE CONSTITUENTS THAT ARE RESTRICTED AND SPECIFIES THE APPROPRIATE TREATMENT STANDARDS IN ACCORDANCE WITH 40 CFR 268.7. THE SAME PROCEDURE WILL CONTINUE TO BE IMPLEMENTED DURING INVENTORY REMOVAL AND WILL BE IMPLEMENTED FOR ANY HAZARDOUS WASTE RESIDUES GENERATED DURING CLOSURE.

I.2.3 Procedures for Decontamination and/or Disposal

I.2.3.1 Equipment/Structures Decontamination

The specific procedures and materials to be used in the decontamination of the container storage pad and storage tank will be dependent on the decontamination contractor. Therefore, details of the decontamination are not included in the closure plan. However; prior to decontamination, ~~Dayton Operations~~ DELCO will make available to Ohio EPA, SWDO the following:

- Size and thickness of polyethylene sheeting to be used to prevent overspray contamination
- Procedures to be used to prevent rinsate from migrating to clean areas
- List of equipment to be decontaminated (e.g., personal protective gear, equipment, vehicles)
- Criteria for determining the equipment is to be decontaminated
- The number and layout of equipment decontamination stations
- Decontamination methods
- Cleaning agents (suitable for the stored wastes)
- Methods of decontaminating equipment
- Health and safety plan including:
  - air monitoring
  - protective clothing
- Emergency decontamination measures

- Measures to be used to collect, contain, and handle rinsate and residues

While the specifics of decontamination will not be determined until a contractor is procured, the general procedures for decontamination are described below.

Container Storage Area

~~Prior to pad decontamination, polyethylene sheeting will be placed around the perimeter and all routes of runoff from the pad sealed to prevent possible migration of cleaning or rinsate solutions to clean areas. The container storage area will be decontaminated by mechanically removing any loose residues from the pad, using stiff-bristle brooms and shovels. These residues will be containerized and disposed of as hazardous waste. The surface of the container pad will then be washed with a high-pressure, low-volume wash or suitable cleaning agent. The pad will be rinsed three times with clean water after the cleaning solution wash.~~

TO INITIATE DECONTAMINATION OF THE CONTAINER STORAGE PAD AREA, POLYETHYLENE SHEETING WILL BE TEMPORARILY PLACED AROUND THE PERIMETER OF THE CONTAINER STORAGE AREA TO PREVENT POSSIBLE SPLASHING OF CLEANING OR RINSATE SOLUTIONS.

THE ESTABLISHMENT OF A DECONTAMINATION AREA WILL FOLLOW, OR PROCEED CONCURRENTLY WITH, THE REMOVAL OF WASTE INVENTORY. THE DECONTAMINATION AREA WILL BE ESTABLISHED AT A LOCATION ADJACENT TO THE CLOSURE AREA AND OUT OF THE WAY OF PLANT TRAFFIC. GENERAL MOTORS WILL NOTIFY OEPA, SWDO OF THE LOCATION AND DESIGN OF THE DECONTAMINATION AREA AT LEAST FIVE (5) DAYS PRIOR TO THE COMMENCEMENT OF CLOSURE.

THE DECONTAMINATION AREA WILL BE PHYSICALLY IDENTIFIED AND CONSTRUCTED WITH A POLYETHYLENE SHEET FLOOR AND 4-INCH SIDEWALLS OR AN EQUIVALENT STRUCTURE TO PREVENT THE RELEASE OF HAZARDOUS MATERIALS OR CONSTITUENTS. THE EXACT LOCATION OF THE AREA WILL DEPEND ON OVERALL PLANT ACTIVITIES AND TRAFFIC

PATTERNS AND WILL BE DETERMINED IMMEDIATELY PRIOR TO COMMENCEMENT OF STORAGE AREA CLEANING PROCEDURES.

THE CONTAINER STORAGE PAD AREA WILL BE DECONTAMINATED BY MECHANICALLY (SCRAPING OR OTHER SIMILAR PHYSICAL PROCEDURE) REMOVING ANY LOOSE RESIDUES FROM THE CONTAINMENT TRAYS AND STRUCTURE, USING STIFF-BRISTLE BROOMS AND SHOVELS. THESE RESIDUES WILL BE CONTAINERIZED AND DISPOSED OF AS HAZARDOUS MATERIAL UNLESS THE WASTE IS OTHERWISE CHARACTERIZED. THE SURFACE OF THE CONTAINMENT STRUCTURE WILL THEN BE WASHED WITH A HIGH-PRESSURE, LOW-VOLUME WASHER AND SUITABLE CLEANING AGENT. A CLEANING SOLUTION WILL BE SELECTED BASED ON SPECIFIC VENDOR RECOMMENDATIONS; HOWEVER, THE SOLUTION GENERALLY WILL CONSIST OF NONALKALI DETERGENT. IT WILL BE RINSED THREE TIMES WITH CLEAN WATER AFTER HAVING BEEN WASHED WITH THE CLEANING SOLUTION.

FOLLOWING DECONTAMINATION, THE RINSATES FROM THE PAD WILL BE SAMPLED FOR THE HAZARDOUS CONSTITUENTS WASTES FROM THE REGULATED UNIT AS OUTLINED IN TABLE I-2. THE PAD WILL HAVE ACHIEVED THE CLEAN CLOSURE STANDARD WHEN THE RINSATE HAVE REACHED THE STANDARDS DISCUSSED IN SECTION I.2.5.3.

IF DECONTAMINATION PROCEDURES DESCRIBED ABOVE ARE NOT SUCCESSFUL, NO FURTHER DECONTAMINATION IS NECESSARY IN ORDER TO USE THE UNIT FOR LESS THAN 90 DAY STORAGE IF THE FOLLOWING CONDITIONS ARE MET:

(A) THE STRUCTURE MUST BE VIRTUALLY FREE OF VISUAL CONTAMINATION. THE APPROPRIATE DOCUMENTATION WILL BE SUPPLIED BY THE QUALIFIED INDEPENDENT REGISTERED PROFESSIONAL ENGINEER RESPONSIBLE FOR CERTIFYING THE CLOSURE (E.G., PHOTOGRAPHS AND A CERTIFICATION STATEMENT FOLLOWING THE REQUIREMENT OF OAC §3745-45-52).

(B) DELCO WILL DEMONSTRATE THAT NO APPRECIABLE DECONTAMINATION IS BEING ATTAINED WITH ADDITIONAL RINSES. THREE (3) DATA POINTS WILL BE USED TO ESTABLISH THE DECONTAMINATION TREND.

(C) THE LAST TWO (2) DATA POINTS WILL NOT DIFFER BY MORE THAN TEN (10) PERCENT.

(D) THE RINSATES WILL BE CHARACTERIZED AS DISCUSSED IN I.2.3.2 AND WILL BE DISPOSED OF APPROPRIATELY AND PROPERLY.

(E) DELCO WILL OPERATE, MAINTAIN, AND DECOMMISSION THE RCRA UNIT IN ACCORDANCE WITH ALL FEDERAL AND OHIO REGULATIONS AND LAW APPLICABLE TO "GENERATOR" STATUS.

AS AN ALTERNATIVE CRITERION FOR ACHIEVING THE CLEAN CLOSURE STANDARD FOR THE CONCRETE PAD, DELCO MAY ELECT TO DEMONSTRATE ATTAINMENT OF THE TREATMENT STANDARD ESTABLISHED IN TABLE 1 OF 40 CFR §268.45 [57 FR 37194, AUGUST 18, 1992] FOR ANY PHYSICAL EXTRACTION TECHNOLOGY APPLICABLE TO CONCRETE. TABLE 1 OF 40 CFR §268.45 PROVIDES THAT THESE PHYSICAL EXTRACTION TECHNOLOGIES INCLUDE ABRASIVE BLASTING, SCARIFICATION, GRINDING AND PLANING, SPALLING, VIBRATORY FINISHING, AND HIGH PRESSURE STEAM AND WATER SPRAYS. THE PERFORMANCE STANDARD REQUIRES: (1) THE REMOVAL OF AT LEAST 0.6 CENTIMETERS OF THE SURFACE LAYER; AND (2) TREATMENT TO A "CLEAN DEBRIS SURFACE" WHICH MEANS THE SURFACE, WHEN VIEWED WITHOUT MAGNIFICATION, SHALL BE FREE OF VISIBLE CONTAMINATED SOIL AND HAZARDOUS WASTE EXCEPT THAT RESIDUAL STAINING FROM SOIL AND WASTE CONSISTING OF LIGHT SHADOW, SLIGHT STREAKS, OR MINOR DISCOLORATIONS, AND SOIL AND WASTE IN CRACKS, CREVICES, AND PITS MAY BE PRESENT PROVIDED THAT SUCH STAINING AND WASTE AND SOIL IN CRACKS, CREVICES, AND PITS

SHALL BE LIMITED TO NO MORE THAN 5% OF EACH SQUARE INCH OF SURFACE AREA.

DECONTAMINATION OF REUSABLE CLEANING EQUIPMENT SUCH AS PUMPS AND HOSES THAT HAVE COME INTO CONTACT WITH THE CONTAINER STORAGE PAD AREA OR RINSATE WILL BE ACCOMPLISHED WITH WATER AND THE SAME TYPE OF CLEANING SOLUTION USED ON THE CONTAINMENT PAD AREA SURFACES. REUSABLE EQUIPMENT WILL BE CONSIDERED CLEAN AFTER A THOROUGH WASHING AND A TRIPLE RINSE. THESE DECONTAMINATION FLUIDS WILL BE CHARACTERIZED AS DISCUSSED IN SECTION I.2.3.2 AND WILL BE DISPOSED OF APPROPRIATELY AND PROPERLY.

Storage Tank

The storage tank will be decontaminated by rinsing the insides with a high-pressure, low-volume washer and suitable cleaning agent. A cleaning solution will be selected based on specific vendor recommendations; however, the solution generally will consist of nonalkali detergent. It will be rinsed three times with clean water after having been washed. General procedures for tank closure are presented in Appendix I-2. The containment structure will be decontaminated as described for the container storage area (Section I.2.3.1).

It is not anticipated that decontamination of cleaning equipment will be needed because it is unlikely that it will have come into contact with the storage units or they will be self-decontaminated. However, if it is necessary, decontamination will be accomplished with the same type of cleaning solution used on the storage units. The equipment will then be triple rinsed with clean water. This will be conducted within the unit and/or decontamination station.

I.2.3.2 Cleaning Agents/Rinsewater Disposal

All cleaning solutions and rinsates will be collected simultaneously with the cleaning operations. The collected wastewater will be sampled and analyzed for those hazardous constituents stored at the HWMF. If the wastewater is determined to be a

hazardous waste, it will be shipped offsite for disposal as hazardous waste TO RCRA-APPROVED TSDF. IN THIS SITUATION THE SHEETING WOULD ALSO BE ASSUMED TO MEET THE DEFINITION OF A HAZARDOUS WASTE AND BE SHIPPED OFFSITE TO A RCRA-APPROVED TSDF. If the wastewater is not considered to be hazardous waste, it will be transported to an offsite batch wastewater treatment plant. IN THIS SITUATION THE SHEETING WOULD BE ASSUMED NON-HAZARDOUS AND DISPOSED AS NON-HAZARDOUS WASTE.

I.2.3.3 Equipment/Structures Demolition and Removal

There are no structures or major equipment to demolish and/or remove from the facility. THE STORAGE TANKS WILL BE DECONTAMINATED AND LEFT INPLACE.

DISPOSAL EQUIPMENT SUCH AS BROOMS, BUCKETS, AND RAGS WILL BE CONTAINERIZED IN THE DECONTAMINATION AREA AND DISPOSED AS HAZARDOUS WASTE IN A PERMITTED OFFSITE DISPOSAL AND/OR TREATMENT FACILITY.

I.2.3.4 Contaminated Soil Removal

IF SOIL SAMPLING IS REQUIRED AND CONTAMINATION ENCOUNTERED, SO AS TO REQUIRE SOIL REMOVAL DELCO WILL AMEND THE CLOSURE PLAN AND SUBMIT TO OEPA FOR APPROVAL. ADDITIONALLY, DELCO WILL PROVIDE OEPA WITH DETAILS OF THE REMOVAL, INCLUDING THE SOURCE OF THE FILL MATERIAL, SPECIFICS FOR SOIL REMOVAL, AND HANDLING AND CHARACTERIZATION OF CONTAMINATED SOILS, AT LEAST FIVE (5) DAYS PRIOR TO THE COMMENCEMENT OF SOIL REMOVAL.

IF SOIL SAMPLING IS REQUIRED AND DELCO DETERMINES THAT UNEXPECTED CONTAMINATION MAKES CLOSURE TO THE "BACKGROUND/NONDETECT" STANDARD UNDESIRABLE, DELCO MAY PROPOSE (1) A SITE-SPECIFIC RISK ASSESSMENT TO ESTABLISH COMPLIANCE WITH THE CLOSURE PERFORMANCE STANDARD AND (2) ANY ADDITIONAL INVESTIGATION OF EXTENT OF CONTAMINATION NECESSARY

TO SUPPORT COMPLIANCE WITH THE CLOSURE PERFORMANCE STANDARD. IF APPLICABLE REGULATIONS COVERING THE DISPOSAL OF CONTAMINATED MEDIA SHOULD BE REVISED, DELCO MAY ALSO FILE AN AMENDED CLOSURE PLAN TO ADDRESS SOIL REMOVAL AND DISPOSAL.

DELCO WILL REMOVE AND HANDLE ALL CONTAMINATED SOILS CONSISTENT WITH ALL APPLICABLE STATE AND FEDERAL LAWS. DELCO WILL HANDLE AND MANAGE ALL REMOVED CONTAMINATED SOILS TO MINIMIZE THE CONTAMINATION OF OTHER MEDIA. DELCO WILL CONTAINERIZE ALL REMOVED CONTAMINATED SOILS IN SUITABLE CONTAINER (I.E., DRUMS, ROLLOFF BOXES, ETC.) AS APPROPRIATE FOR THE VOLUME OF SOILS REMOVED. DELCO WILL NOT CREATE ILLEGAL WASTE PILES.

DELCO WILL MANAGE AND DISPOSE OF SOILS CONTAMINATED WITH LISTED HAZARDOUS CONSTITUENTS AS LISTED HAZARDOUS WASTE. SOILS CONTAMINATED WITH OTHER HAZARDOUS CONSTITUENTS SHALL BE DISPOSED OF AS SOLID WASTE AS LONG AS IT NO LONGER EXHIBITS THE CHARACTERISTICS OF A HAZARDOUS WASTE.

CONTAMINATED SOILS WILL BE EXCAVATED USING THE GUIDANCE IN SECTION 7.1 OF THE HANDBOOK ON REMEDIAL ACTION AT WASTE DISPOSAL SITES (U.S. EPA, 1985). SPECIFIC METHODS OF SOIL REMOVAL WILL BE DEPENDENT ON THE CONTRACTOR. HOWEVER, IT IS ANTICIPATED THAT SOILS WILL BE REMOVED USING SHOVELS OR EQUIVALENT FOR SMALL AREAS OR EARTHMOVING EQUIPMENT (I.E., HYDRAULIC EXCAVATOR, BACKHOE, OR FRONT-END LOADERS OR EQUIVALENT) FOR LARGE AREAS.

~~If the soils beneath the pad are identified as contaminated, Dayton Operations will conduct additional soil sampling and analysis using the Ohio EPA guidance (February 8, 1988) to determine the extent of contamination. Once the extent of contamination is determined, Dayton Operations will submit an amended closure plan pursuant to 40 CFR 264.112(c)(1)(iii), to describe how the contaminated soil will be removed. The soil excavation methods will be chosen using the guidance in Section 7.1 of the Handbook on~~

~~Remedial Action at Waste Disposal Sites (U.S.EPA, 1985). The amended closure plan will include the following:~~

- ~~A description of the excavation and removal equipment and procedures to be used to remove the concrete pad and contaminated soil.~~
- ~~A description of the temporary staging area(s) which will be used, including details on the design, construction materials, and operation of the staging area(s).~~
- ~~A description of the onsite air monitoring which will be conducted for particulates during excavation.~~
- ~~A description of the dust suppression techniques (i.e., tarpaulins or wetting agents) which will be used during excavation.~~
- ~~A description of methods which will be used to prevent cross contamination of soils during excavation and removal of contaminated soils.~~

~~The contaminated soil will be removed and disposed of properly. If it meets the definition of a hazardous waste, it will be placed in open head drums, sealed and treated or disposed at a commercial hazardous waste treatment or disposal facility.~~

~~The amended closure plan will also include a soil sampling and testing plan based on Ohio EPA closure plan review guidance (February 8, 1988) to be used to demonstrate that all contaminated soils have been successfully removed. The sampling and testing plan will include the number of soil samples to be obtained and the rationale for their selection.~~

~~The soils will be considered clean when it meets the higher of the following:~~

- ~~Health/Risk-based Levels~~
- ~~Background~~
- ~~Practical Quantitation Limits~~

~~The Ohio EPA will be notified at least 5 days prior to any sampling of the soils for demonstration that the contaminated soils have been removed.~~

I.2.4 Description of Security Systems

The units are located within manufacturing facility property which is enclosed by a chainlink fence topped by barbed wire and monitored by security guards 24 hours a day. In addition, both storage units are equipped with warning signs.

I.2.5 Closure Certification

Certification of closure will be conducted at its completion by an independent, registered, professional engineer and the owner/operator of ~~Dayton Operations~~ DELCO. It will certify that closure was conducted in accordance with the approved closure plan and will be submitted within 60 days to the Regional Administrator by registered mail.

The certification will be signed by both the owner/operator and the independent registered professional engineer. The owner/operators and independent registered professional engineer's certifications of closure will follow the signature requirements found in OAC 3745-50-42. The owner/operator's certification statement will follow the exact wording found in OAC 3745-50-41(D). Documentation supporting the independent registered professional engineers certification will be furnished to the Director of Ohio EPA upon request until the Director of Ohio EPA releases the owner/operator from the financial assurance requirements for closure under OAC 3745-66-43(H).

Certification of closure and required documentation shall be submitted to the Director of Ohio EPA as stated in OAC 3745-~~66~~55-15.

An inspector will be present during closure activities to conduct the QA/QC program. The inspector may be the actual independent professional engineer completing the closure certification or his qualified representative. All observations and determinations of the QA/QC program will be recorded in a daily log of activities, and a final report will be prepared summarizing these activities. The daily log includes identification of contractors, equipment, work conducted, samples collected, etc. Copies of all laboratory reports for testing described below will be presented in the final report.

I.2.5.1 Activities to be Conducted

The activities to be conducted as part of closure include:

- Visual inspection ~~of areas surrounding the container storage area pad~~ FOR EVIDENCE OF RELEASE

- Collection of soil samples underlying ~~and adjacent~~ to the container storage area pad AND COLLECTION OF BACKGROUND SOILS SAMPLES IF EVIDENCE OF RELEASE IS IDENTIFIED
- Collection of water samples from container storage area pad rinsate after decontamination
- Collection of water samples from tank rinsate after decontamination and tank containment pad rinsate

A description of each of these activities is provided below.

Visual Inspection

~~a visual inspection of the area surrounding the container storage area pad will be conducted to identify any evidence of spills or releases. The area is paved with concrete. Any areas displaying staining will be decontaminated using procedures described for the container storage area pad.~~

THE CLOSURE OF THE FACILITY DOES NOT NECESSITATE SOIL SAMPLING GIVEN THAT THERE ARE NO PATHWAYS TO NATURAL SOILS AROUND THE CONTAINER STORAGE AREA AND YEARLY RCRA INSPECTION CONFIRM THE STRUCTURAL INTEGRITY OF THE PAD. IF ANY SPILLS FROM THE PAD HAD OCCURRED, THE SPILLS WOULD HAVE BEEN CONTAINED IN THE TRENCH SURROUNDING THE CONTAINER STORAGE PAD. THEREFORE A VISUAL INSPECTION CONDUCTED DURING CLOSURE WILL BE SUFFICIENT TO DEMONSTRATE THAT THERE HAVE BEEN NO RELEASES TO THE ENVIRONMENT FROM THE PAD.

IF THE VISUAL INSPECTION DURING CLOSURE INDICATES THAT THE INTEGRITY OF THE PAD IS QUESTIONABLE OR THAT EXISTING CRACKS OR PATCHES POSE THE POTENTIAL OF HAZARDOUS WASTE RELEASE INTO THE ENVIRONMENT, SOIL SAMPLING WILL BE CONDUCTED TO ENSURE THAT CLEAN CLOSURE HAS BEEN ACHIEVED. PRIOR TO SAMPLING, SWDO AND OEPA WILL BE NOTIFIED OF THE SAMPLING LOCATIONS.

Collection of Soil Samples (if necessary)

Container Storage Area

~~The evaluation of soil underlying the container storage unit will be conducted. If soil is identified as contaminated, an amended closure plan including details of further sampling and site remediation, as appropriate, will be prepared. If the soil is identified as not contaminated, only the closure activities identified above will be conducted. The Ohio EPA will be notified at least five business days prior to any sampling.~~

BASED ON THE RESULTS OF THE VISUAL INSPECTION, IF NECESSARY, SOIL SAMPLES FROM BENEATH THE PAD WILL BE COLLECTED ALONG CRACKS THAT APPEAR TO PROVIDE A POTENTIAL MECHANISM FOR RELEASE TO UNDERLYING SOIL OR CRACKS THAT ACCOMPANY STAINING. IF SOIL SAMPLING IS REQUIRED, OEPA WILL BE NOTIFIED AT LEAST FIVE BUSINESS DAYS PRIOR TO ANY SAMPLING. AT THIS TIME THE LOCATION OF THE SAMPLING POINTS WILL BE IDENTIFIED. SAMPLING WILL BE ACCOMPLISHED AS DESCRIBED BELOW.

ACCESS TO UNDERLYING SOIL AT THE CONTAINER STORAGE UNIT WILL BE OBTAINED BY CORING A SMALL HOLE THROUGH THE CONCRETE. SOIL SAMPLES WILL BE COLLECTED WITH DEDICATED SHELBY TUBES MANUALLY DRIVEN INTO THE SOIL. THEY WILL BE COLLECTED TO A DEPTH OF 18 INCHES IN 6-INCH SEGMENTS. ONLY THE 0-6 INCH SEGMENTS WILL INITIALLY BE SAMPLES AND ANALYZED. IF ANALYTICAL RESULTS OF THESE SAMPLES SHOW CONTAMINATION, 12- AND 18-INCH SAMPLES WILL ALSO BE ANALYZED TO DETERMINE THE VERTICAL EXTENT OF CONTAMINATION. CARE WILL BE TAKEN TO NOT EXCEED THE SAMPLE HOLDING TIMES. AS A QA/QC MEASURE, TWO DUPLICATES WILL BE TAKEN AT TWO DIFFERENT LOCATIONS. ALL SAMPLES WILL BE TRANSFERRED INTO A LABORATORY SUPPLIED CONTAINER, SEALED AND PLACED IN AN INSULATED SHIPPING CONTAINER. ANY EXCESS SOIL, FILL, OR CONCRETE WILL BE RETURNED TO THE SAMPLING LOCATION. THE BORE HOLE WILL

BE SEALED WITH PLASTIC OR CAULK TO PREVENT THE SPREAD OF ANY POTENTIAL CONTAMINATION.

IN ADDITION TO BENEATH THE PAD SAMPLES, BACKGROUND SAMPLES WILL BE COLLECTED IF SOIL SAMPLING IS DEEMED NECESSARY. THE SAMPLES WILL BE ANALYZED IN EVALUATING THE ANALYTICAL RESULTS OF HEAVY METAL AND INORGANIC CONSTITUENTS.

IT IS ANTICIPATED THAT NOT MORE THAN ONE SOIL HORIZON WILL BE ENCOUNTERED DURING SAMPLE COLLECTION. HOWEVER, IF ANOTHER HORIZON IS ENCOUNTERED WITHIN THE 2 FEET, A SAMPLE WILL BE COLLECTED FROM EACH HORIZON. EACH SAMPLE WILL BE ANALYZED FOR THE METAL CONSTITUENTS SHOWN IN TABLE I-2. BACKGROUND VALUES WILL BE ESTABLISHED FOR EACH CONSTITUENT BY USING A STUDENT'S T-TEST AT THE 95 PERCENT LEVEL OF CONFIDENCE OR ANOTHER OHIO EPA-APPROVED STATISTICAL METHOD, CONSISTENT WITH OHIO EPA'S RCRA CLOSURE PLAN REVIEW GUIDANCE (MAY 1991) PGS. 30-31.

PRIOR TO COLLECTION OF BACKGROUND SOIL SAMPLES PROPOSED, SAMPLING POINTS WILL BE SUBMITTED TO THE OEPA'S, SWDO FOR APPROVAL 10 DAYS PRIOR TO COLLECTION OF BACKGROUND SAMPLES. OEPA AT THIS TIME WILL HAVE THE OPPORTUNITY TO VISIT THE SITE AND VIEW THE PROPOSED SAMPLING POINTS.

DELCO MAY USE THE FOLLOWING STATISTICAL GUIDE TO IDENTIFY BACKGROUND SOIL DATA FOR EVALUATION AS TO WHETHER THE DATA ARE REPRESENTATIVE OF BACKGROUND CONTAMINATION:

$$\text{UPPER CUTOFF} = \text{UPPER QUARTILE} + 1.5\ \text{IQR}$$

WHERE IQR IS THE INTERQUARTILE RANGE. DATA WILL BE NORMALIZED BY USE OF AN APPROPRIATE TRANSFORMATION, IF NECESSARY, PRIOR TO CALCULATION OF THE UPPER CUTOFF. DATA ABOVE THE CUTOFF WILL BE REVIEWED TO DETERMINE WHETHER EVIDENCE EXISTS TO SUGGEST THAT THE DATA ARE NONREPRESENTATIVE OF BACKGROUND CONTAMINATION

IN THE REGION. DELCO WILL SEARCH DATA FOR SAMPLING AND LABORATORY ERRORS, FIELD EVIDENCE OF WASTE MATERIALS AT THE SAMPLING LOCATIONS, AND OTHER PLAUSIBLE CAUSES. DELCO MAY ALSO COMPARE SUCH DATA TO REGIONAL BACKGROUND DATA (E.G., FROM LITERATURE SOURCES). WHERE SUFFICIENT EVIDENCE INDICATES THAT A BACKGROUND SAMPLE IS NONREPRESENTATIVE OF BACKGROUND CONTAMINATION, AFTER CONSULTING WITH OHIO EPA, DELCO WILL DISCARD THE DATUM AND OBTAIN A SUBSTITUTE SAMPLE.

Storage Tank

As described in Section I.1.6.4, the hazardous waste storage tank has secondary containment to prevent migration of liquids from the tank area in the event of a spill. Because of the design and maintenance of the secondary containment, any spillage inside the containment area is prevented from migration to underlying soil. Therefore, no sampling is planned for the soils underlying or adjacent to the hazardous waste tank containment pad.

Sample Containers and Sample Handling

Sample containers will be selected and prepared by the analytical laboratory. Sample containers will be supplied to the cleanup contractor under appropriate chain-of-custody. Receipt of the sample containers will be formally acknowledged on chain-of-custody records. A typical chain-of-custody path is shown in Appendix I-3.

Each sample container will have a waterproof label and will contain the sample location, date and time of sampling, sampler's identification, and sample container identification number. All samples will be placed in a cold insulated shipping container and will be sent to the laboratory via overnight delivery service on the day that they are collected. Chain-of-custody documentation will accompany the samples.

Prior to use in the field, all sampling equipment will be cleaned with a solution of 2 percent trisodium phosphate (TSP) or equivalent solution in distilled water followed by a triple rinse with distilled water. Sampling equipment will be decontaminated between collection of samples using the same procedure. Rinsate from the decontamination of

sampling equipment will be collected, combined with, and disposed of in the same manner as the cleanup decontamination rinsates.

Collection of Rinsate Samples from the Container Storage Area

The container storage area pad will be evaluated for adequacy of decontamination by collecting and analyzing the final rinsate. The sample will be collected with a dedicated or precleaned glass or stainless steel container and quickly transferred to the laboratory-supplied container. Sample containers and sample handling will be as described above for soil sample collection. A duplicate sample will be collected and a trip blank will be analyzed as QA/QC measures.

Collection of Rinsate Samples from the Storage Tank

The storage tanks will be evaluated for adequacy of contamination by collecting and analyzing final rinsate. The sample will be collected with a dedicated or precleaned glass or stainless steel container and quickly transferred to the laboratory supplied container. Sample container and sample handling will be as described above for soil sample collection. A duplicate sample will be collected and a trip blank will be analyzed as QA/QC measures.

I.2.5.2 Testing and Analysis to be Performed

Samples collected from each unit and the soil (IF NECESSARY) will be analyzed for all RCRA-regulated wastes CONSTITUENTS AS IDENTIFIED IN 40 CFR 261, APPENDIX VIII OR 264 APPENDIX IX reported to have been stored there.

Analyses for organic wastes and the hazardous characteristics of corrosivity and TCLP ~~EP~~-toxicity will be conducted using methods found in U.S. EPA publication SW-846, *Test Methods for Evaluating Solid Wastes*, November 1986, third edition. Where more than one analytical method is specified for the soil sample analysis, the method with the lowest detection limit will be used. Determination of the hazardous characteristics of ignitability will be conducted in accordance with methods and criteria specified in 40 CFR 261.21.

RINSATE SAMPLES COLLECTED FROM EACH UNIT AND SOIL (IF NECESSARY) WILL BE TESTED FOR THE PARAMETERS SHOWN IN TABLE I-2.

I.2.5.3 Criteria for Evaluating Adequacy

Criteria for evaluating adequacy will be divided into two parts: unit decontamination and the identification or lack of identification of releases to the environment. Unit decontamination will be based on rinsate sample analyses, the identification of release, will be based on ~~soil analyses~~ VISUAL INSPECTION AND, IF NECESSARY, SOIL ANALYSIS.

Soil Sample Evaluation

IF SOIL SAMPLING IS REQUIRED FROM VISUAL INSPECTION OF THE PAD, the soil samples will be evaluated using Ohio EPA guidance (May 1, 1991). The soil will be considered clean when ~~the concentrations in the soil are below analytical detection limits using methods in U.S. EPA's SW-846 (third edition). The method with the lowest detection will be used where more than one analytical method is specified~~ NON-NATURALLY OCCURRING HAZARDOUS CONSTITUENTS ASSOCIATED WITH RCRA WASTES STORED ON THE PAD ARE BELOW MDL; (2) NATURALLY OCCURRING HAZARDOUS CONSTITUENTS ASSOCIATED WITH THE RCRA WASTE STORED IN THE REGULATED UNITS ARE NOT PRESENT ABOVE THE ESTABLISHED BACKGROUND SOIL CLEAN STANDARDS.

Rinsate Sample ~~Analysis~~ EVALUATION

~~The following Ohio EPA guidance (Ohio EPA interoffice memo, October 6, 1988) will be used to demonstrate the success of decontamination of the concrete storage pad, storage tank and equipment. Ohio EPA guidance specifies that the pad, tanks, and equipment~~ THE DECONTAMINATED UNITS will be considered clean when the rinsate from cleaning each item contains no more than the following for each hazardous constituent of concern:

- FIFTEEN TIMES (15) The public drinking water maximum contaminant level (MCL) for hazardous waste constituents as promulgated in 40 CFR 141.11 and

OAC 3745-81-11 for inorganics and 40 CFR 141.12 and OAC 3745-81-12 for organics.

- If an MCL is not available, then FIFTEEN TIMES (15) the maximum contaminant level goal (MCLG) as promulgated in 40 CFR 141.50 will be used AS A CLEAN STANDARD. IF THE MCGL IS ZERO (0), THEN THE CLEAN STANDARD SHALL BE FIFTEEN (15) TIMES THE COMPOUND'S METHOD DETECTION LIMIT (MDL).

- If neither a MCL or MCLG is available OR THE PRODUCT OF FIFTEEN (15) TIMES THE MCL OR MCLG EXCEEDS 1 MG/L, 1 mg/l will be used.

- ~~If the MCL or MCLG is less than the contaminant's analytical detection limit using methods found in U.S. EPA's SW-846 (third edition), the SW-846 analytical detection limit will be used as the clean standard.~~

- ~~For characteristic wastes, the rinsate will not be hazardous by characteristics specified in 40 CFR 261 and OAC 3745-51.~~

I.2.5.4 Schedule of Inspections

Decontamination of the container storage unit and tank storage unit will be observed by an independent, Ohio-registered engineer or his qualified representative. The collection of samples to verify decontamination will be observed or conducted by the engineer or his qualified representative.

I.2.5.5 Types of Documentation

Documentation of closure procedures will be provided in a certification report. The report will contain a statement of certification by an independent, registered professional engineer. It will certify that the facility has been closed in accordance with the specifications in the approved plan. The report will include daily QA/QC logs and all laboratory analysis reports.

I.3 SCHEDULE OF CLOSURE

I.3.1 Expected Year of Closure

~~It is anticipated that closure will commence at the end of the facility's operating life; however, no closure date is anticipated at this time.~~ CLOSURE WILL COMMENCE ONCE APPROVAL OF THE CLOSURE PLAN IS RECEIVED FROM OEPA.

I.3.2 Frequency of Partial Closure

This plan calls for complete closure of the ~~Dayton Operations~~ DELCO hazardous waste management facilities, therefore there will be no partial closures.

I.3.3 Milestone Chart

A schedule of closure activities is presented below and is in accordance with 40 CFR 264.112(b)(6) and OAC 3745-55-12(A)(4),. The estimated time to complete closure is approximately 90 days.

Days Following OEPA Approval Of Closure	Activity
0 - 10	Removal of inventory
10	VISUAL INSPECTION AND IF NECESSARY Soil sampling
10 - 40*	Sample analyses
40 - 45	Decontamination of HWMF
45	Collection of final rinsate samples
45 - 75**	Analyses of rinsate samples
75 - 89	Preparation of closure report
90	Certification of closure

* If soil samples indicate contamination, an amended closure plan will be prepared.

** If final rinsate indicates contamination, a second decontamination will be conducted. Decontamination procedures will be continued until rinsate samples are below closure standard.

I.3.4 Request for Extension

A request for extension of the closure schedule is not anticipated. However, if due to weather delay or any unforeseen event, one is required it will be requested pursuant to 3745-66-13(B).

I.4 COST

I.4.1 Estimated Cost of Complete Closure

The estimated total cost to complete the closure requirements of this amended closure plan is $55,65248. ~~Table I-1~~ TABLE I-3 presents a summary of cost by tasks.

I.5 POST-CLOSURE PLAN

A post-closure plan is not required because hazardous waste or hazardous waste constituents will not remain following certification of closure completion.

I.6 NOTICE IN DEED TO PROPERTY AND LOCAL LAND AUTHORITY

A notice in the deed to the property and a notice to the local land use authority will not be required because hazardous waste and hazardous waste constituents will not remain following certification of closure completion.

I.7 FINANCIAL ASSURANCE MECHANISM FOR CLOSURE AND LIABILITY REQUIREMENTS

General Motors Corporation has chosen the financial test specified under OAC 3745-66 to demonstrate financial assurance for closure of ~~Dayton Operations~~ DELCO. The documentation is presented in Appendix I-4. Demonstration for financial responsibility for sudden liability coverage is also presented in Appendix I-4.

TABLE I-1

CHARACTERISTICS OF HAZARDOUS WASTE MANAGED AT THE FACILITY

Waste Description	Hazardous Waste Constituents†	U.S. EPA Identification Number	Maximum** Quantity Stored (lb/yr)
*Hypalon-dip tank compound #17346 (cement house)	Toluene Xylene Methyl Ethyl Ketone	D001 F003 F005	6,480
Chromic acid (mold cleaning)	Chromium	D002 D007	87,642
*Hypalon coating weatherstrips (made in cement house)	Xylene	D001 F003	57,160
*Neoprene coating weatherstrips (made in cement house)	Xylene	D001 F003	8,883
*Lab waste (generation point cement house)	Xylene	D001 F003	623
Waste cement and solvent cement house	Xylene Toluene	D001 F003 F005	13,660
Etching copper solution (includes Hydrochloric acid) (Mezzanine)	1,1,1-Trichloroethane Tetrochloroethylene Methylene Chloride	D002 F002	13,200
Caustic cleaning part #1912091 (Parts washer)		D002	5,720
Cleaning solvent safety kleen (Tool Room) Other locations (maintenance, etc.)		D001	451

* Denotes can be bulked in the 7,000 gallon storage tank.
** Based on maximum quantity stored in one year from 1985-1991 historical data.
*** Accumulated and resold.
† 40 CFR 261 Appendix VIII and 40 CFR 264 Appendix IX.

TABLE I-1 (Continued)

Waste Description	Hazardous Waste Constituents†	U.S. EPA Identification Number	Maximum** Quantity Stored (lb/yr)
Solvents (Paint Lab)	Methyl Isobutyl Ketone Xylene Perchloroethylene 1,1,1-Trichloroethane	D001 F002 F003	11,140
Solvent (Maintenance) (Spray Booth)		D001	880
*Titration sol (contains Perchloric Acid) (Benchlab)	Acetone	D001 D002, F003	2,540
Spent solvent (Vapor Degreaser) (RIM Lab)	1,1,1-Trichloroethane Methylene Chloride	F001	1,370
Paint & Solvents	Chromium Lead	D001 D007 D008	22,500
Mixed Solvents	Methyl Isobutyl Ketone Xylene Toluene	F001 F002 F005	69,957
Isocyanates***	Toluene Diisocyanate	U223	12,150
Miscellaneous wastes	2-butanone Toluene Chloroform Trichloroethylene 1,1,1-Trichlooethane Xylene	U159 U220 U044 U210 U226 U239	226

* Denotes can be bulked in the 7,000 gallon storage tank.
** Based on maximum quantity stored in one year from 1985-1991 historical data.
*** Accumulated and resold.
† 40 CFR 261 Appendix VIII and 40 CFR 264 Appendix IX.

TABLE I-2

U.S. EPA SW-846 TEST METHODS FOR RINSATES AND SOIL (IF NECESSARY) SAMPLES FROM REGULATED UNIT

Waste Description	Hazardous Waste Constituents†	U.S. EPA ID. No.	U.S. EPA SW-846 Method Number Preparation	Analysis
*Hypalon-dip tank compound #17346 (cement house)		D001	1010, if liquid as described in 40 CFR 261.21 if solid	
	Toluene	F003	5030	8240
	Xylene	F005	5030	8240
	Methyl Ethyl Ketone		5030	8240
Chromic acid (mold cleaning)		D002		9040/9041
	Chromium	D007	3050	7190
*Hypalon coating weatherstrips (made in cement house)		D001	1010, if liquid as described in 40 CFR 261.21 if solid	
	Xylene	F003	5030	8240
*Neoprene coating weatherstrips (made in cement house)		D001	1010, if liquid as described in 40 CFR 261.21 if solid	
	Xylene	F003	5030	8240
*Lab waste (generation point cement house)		D001	1010, if liquid as described in 40 CFR 261.21 if solid	
	Xylene	F003	5030	8240
Waste cement and solvent cement house		D001	1010, if liquid as described in 40 CFR 261.21 if solid	
	Xylene	F003	5030	8240
	Toluene	F005	5030	8240
Etching copper solution (includes Hydrochloric acid) (Mezzanine)		D002		9040/9041
	1,1,1-Trichloroethane	F002	5030	8240
	Tetrochloroethylene		5030	8240
Caustic cleaning part #1912091 (Parts washer)		D002		9040/9041
Cleaning solvent safety kleen (Tool Room) Other locations (maintenance, etc.)		D001	1010, if liquid as described in 40 CFR 261.21 if solid	

† 40 CFR 261 Appendix VIII and 40 CFR 264 Appendix IX.
** Accumulated and resold.

TABLE I-2 (Continued)

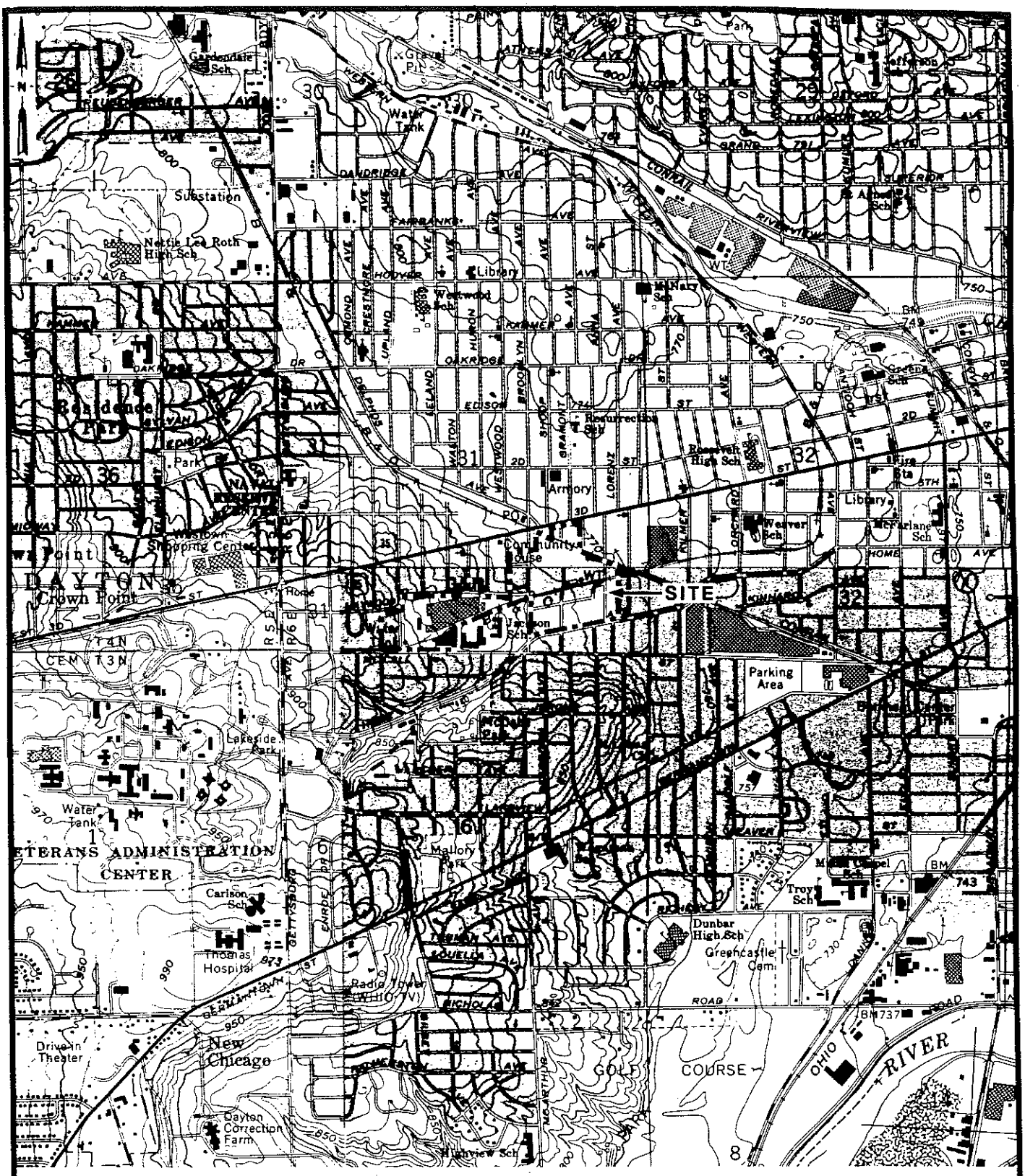
Waste Description	Hazardous Waste Constituents†	U.S. EPA ID. No.	U.S. EPA SW-846 Method Number Preparation	Analysis
Solvents (Paint Lab)		D001	1010, if liquid as described in 40 CFR 261.21 if solid	
	Methyl Isobutyl Ketone	F002	5030	8240
	Xylene	F003	5030	8240
	Perchloroethylene		5030	8240
	1,1,1-Trichloroethane			
Solvent (Maintenance) (Spray Booth)		D001	1010, if liquid as described in 40 CFR 261.21 if solid	
*Titration sol (contains Perchloric Acid) (Benchlab)		D001	1010, if liquid as described in 40 CFR 261.21 if solid	
		D002		9040/9041
	Acetone	F003	5030	8240
Spent solvent (Vapor Degreaser) (RIM Lab)	1,1,1-Trichloroethane	F001	5030	8240
	Methylene Chloride		5030	8240
Paints & Solvents		D001	1010, if liquid as described in 40 CFR 261.21 if solid	
	Chromium	D007	3050	7190
	Lead	D008	3050	7420
Mixed Solvents	Methyl Isobutyl Ketone	F001	5030	8240
	Xylene	F002	5030	8240
	Toluene	F005	5030	8240
Isocyanates†	Toluene Diisocyanate	U223	3050	8240
Miscellaneous wastes	2-butanone	U159	3050	8240
	Toluene	U220	3050	8240
	Chloroform	U044	3050	8240
	Trichloroethylene	U210	3050	8240
	1,1,1-Trichlooethane	U226	3050	8240
	Xylene	U239	3050	8240

† 40 CFR 261 Appendix VIII and 40 CFR 264 Appendix IX.
** Accumulated and resold.

TABLE I-3

CLOSURE COST ESTIMATES
HAZARDOUS WASTE TANK AND CONTAINER STORAGE UNITS

Description	Units	Unit Price	Total ($)
1. Preparation	~~20~~ 90hours	$40/hour	~~800~~ 3,600
2. Disposal of existing wastes	~~20,040~~ 6,160 gallons	~~$1.10~~/$1.50/gallon	~~22,044~~ 9,240
3. Decontamination	~~40~~ 60 hours	~~$200~~/$350/hour	~~8,000~~ 21,000
4. Collection of verification samples:			
Laboratory	8 hours	$50/hour	400
Supplies	lump sum	$533	533
5. Disposal of contaminated equipment:			
Clothing	2 drums	$100/drum	200
Miscellaneous brooms, brushes, pails, plastic sheeting, etc.	4 drums	$100/drum	400
6. Laboratory analysis of samples:			
Soil			
Rinsate	3 samples	$1,000/sample	3,000
QA/QC	3 samples	$1,000/sample	3,000
7. Certification			
Technical Assistant	60 hours	$50/hour	3,000
Registered Engineer	12 hours	$160/hour	2,000
	Subtotal		~~46,377~~ 3
	20 percent contingency		9,275
	Total		~~$55,652~~ 48



BASE MAP SOURCE: Compiled from the following USGS 7 1/2 minute topographic quadrangle maps: Dayton North, Ohio 1965, photorevised 1981; Dayton South, Ohio 1966, photorevised 1981; Miamisburg, Ohio 1965, photorevised 1987; Trotwood, Ohio 1965, photorevised 1982.

0 2000 4000

SCALE IN FEET

Quadrangle location

Delco Chassis Division

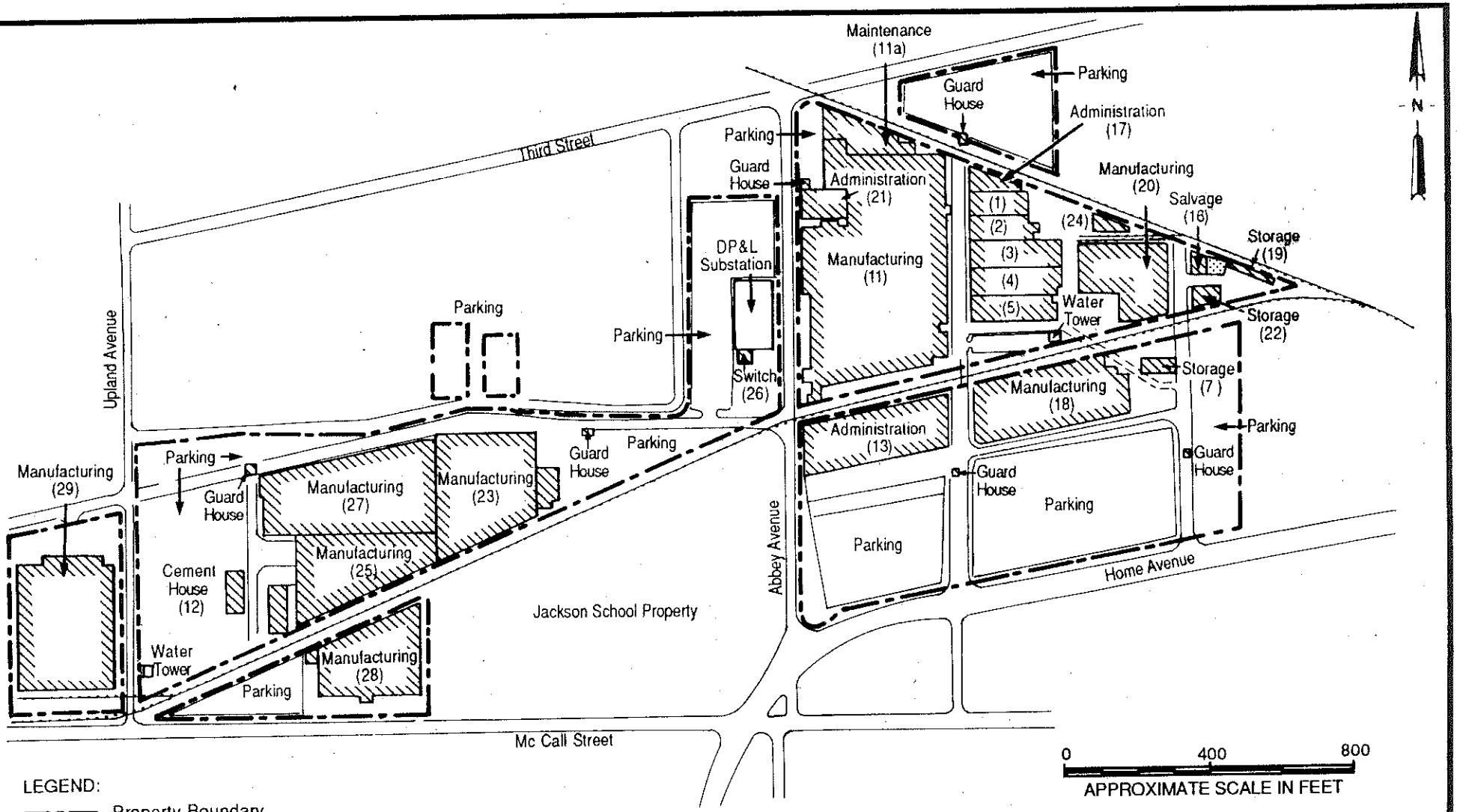
Delco Chassis | GM

Dayton, Ohio

FIGURE I-1

SITE VICINITY MAP

Dames & Moore
Job No. 299-198-122



LEGEND:

- Property Boundary
- (2) Building Designation
- Hazardous Waste Management Facility
- Railroad

BASE MAP SOURCE: Delco Products Dayton Operations, General Motors Corporation, Dayton, Ohio, 1981.

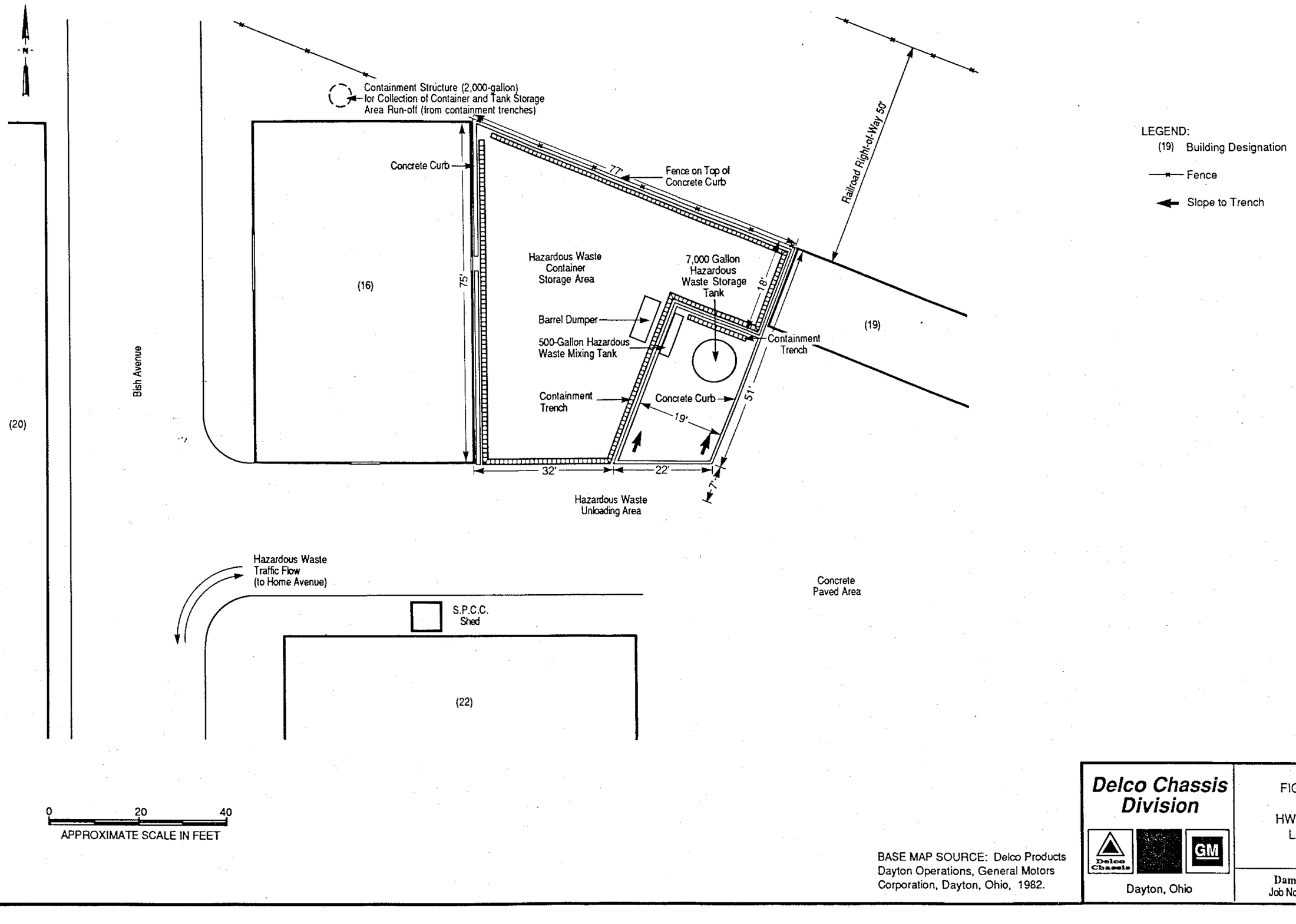
Delco Chassis Division

Dayton, Ohio

FIGURE I-2

DAYTON OPERATIONS PLANT LAYOUT

Dames & Moore
Job No. 299-198-122



BASE MAP SOURCE: Delco Products Dayton Operations, General Motors Corporation, Dayton, Ohio, 1982.

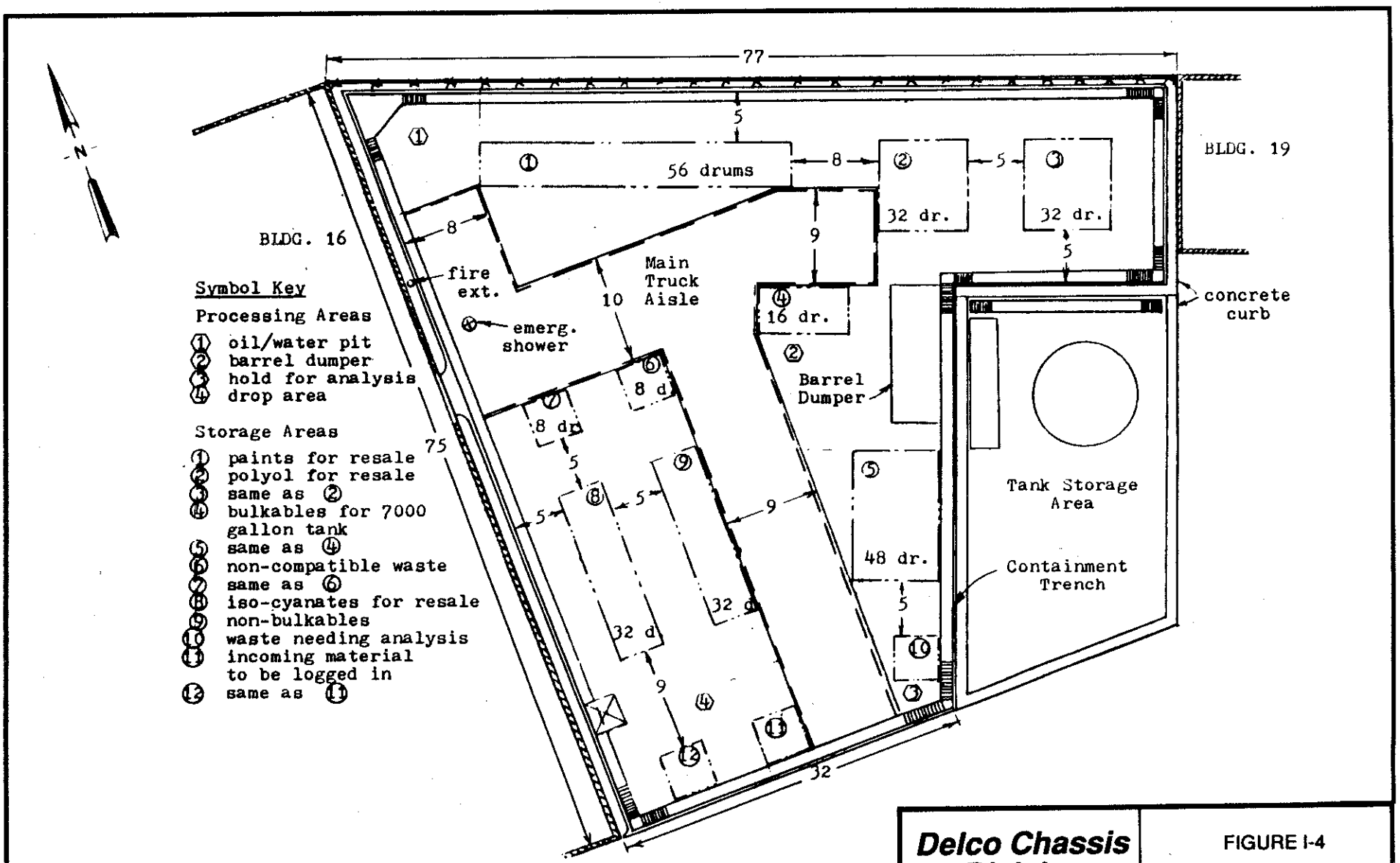
Delco Chassis Division

Dayton, Ohio

FIGURE I-3

HWMF AREA LAYOUT

Dames & Moore
Job No. 299-198-122



SOURCE: Delco Products Dayton Operations, General Motors Corporation, Dayton, Ohio, 1982.

Delco Chassis Division

Dayton, Ohio

FIGURE I-4

CONTAINER STORAGE AREA

Dames & Moore
Job No. 299-198-122

APPENDIX I-1

ENGINEERING DRAWINGS OF TANKS NO. 1 AND NO. 2

APPENDIX I-2

GENERAL PROCEDURES FOR TANK CLOSURE

GENERAL TANK CLOSURE PROCEDURES

A. OUTLINE - TO SAFELY CLEAN ABOVE GROUND STORAGE TANK

1. Prepare and provide for access to each tank.

2. Remove remaining material from tanks and transport the material to a permitted disposal facility.

3. Rinse, scrape, and/or squeegee tank interiors.

4. Clean water rinse.

B. PHASE I - OPEN THE TANK

1. Depending on the type of opening and the condition of the equipment, a variety of tools may be used. Care must be exercised to minimize spark generation when working on the tank.

2. Prior to opening the tanks, the personnel should have full face respiratory protection and protective clothing. Once the tanks have been opened, they will be provided with positive ventilation. The tanks will then be inspected to determine the approximate quantity and physical conditions of the remaining material.

c. PHASE II - REMOVING WASTE AND CLEANING TANK

1. Before removing the waste from the tank, all piping and appurtenant equipment will be flushed first with clean mineral spirits followed by detergent solution.

2. The method to remove the waste material from the tanks will depend on the physical properties and quantities of that material. Prior to any person entering the tank, an effort will be made to remove as much liquid and sludge as possible.

3. Subsequent to vacuuming the majority of the material from the tanks, it may be necessary to use a high-pressure wash system using clean solvent and detergent solution to rinse residual material from the walls and bottom of the tanks. The evacuated material and the rinse solution will be sent to the local GM wastewater treatment plant before discharge into the local POTW. The quantity of wash fluid used will be kept to a minimum in order to limit the amount of unnecessary material.

4. Storage tanks are considered confined spaces (i.e., spaces open or closed having a limited means of egress in which poisonous gases or flammable vapors might accumulate or an oxygen deficiency might occur).

5. Confined space entry requires special operating procedures:

k. All electrical equipment to be used inside the tank must be in good repair and grounded.

1. Others working in the immediate area shall be informed of the work being done; and they shall inform the watcher or supervisor immediately of any unusual occurrence that may make it necessary to evacuate the tank.

6. The buddy system (watcher or standby observer):

a. Personnel working inside a confined space must be under the constant observation of a fully instructed watcher.

b. Before anyone enters the tank, the watcher will be instructed by the person in charge of the entry that:

1. An entry authorization must be obtained from the person in charge by anyone entering the tank.

2. A rescue harness or wristlets must be on the job.

3. The watcher much know the location of the nearest:

i. Telephone (with emergency numbers posted)
ii. Safety eyewash/shower
iii. Fire extinguisher
iv. Oxygen inhalator

4. For all hot work inside a tank, the watcher must be instructed how to shutdown welding/burning equipment.

5. As long as anyone is inside the vessel, the watcher must remain in continuous contact with the worker. HE IS NOT TO LEAVE THE JOB SITE EXCEPT TO REPORT AN EMERGENCY.

6. UNDER NO CIRCUMSTANCES SHOULD THE WATCHER ENTER THE VESSEL. If the worker(s) in the tank becomes ill or is injured, the watcher is to effect the site contingency plan.

7. The watcher still DOES NOT ENTER THE TANK until help is available.

c. After being instructed in his responsibilities, the watcher will sign an instruction form indicating his understanding.

7. Welding and Burning Within a Tank

a. All welding and burning equipment must be provided with a shutoff under control of the watcher, and the watcher must be shown how to shutoff the equipment if it becomes necessary.

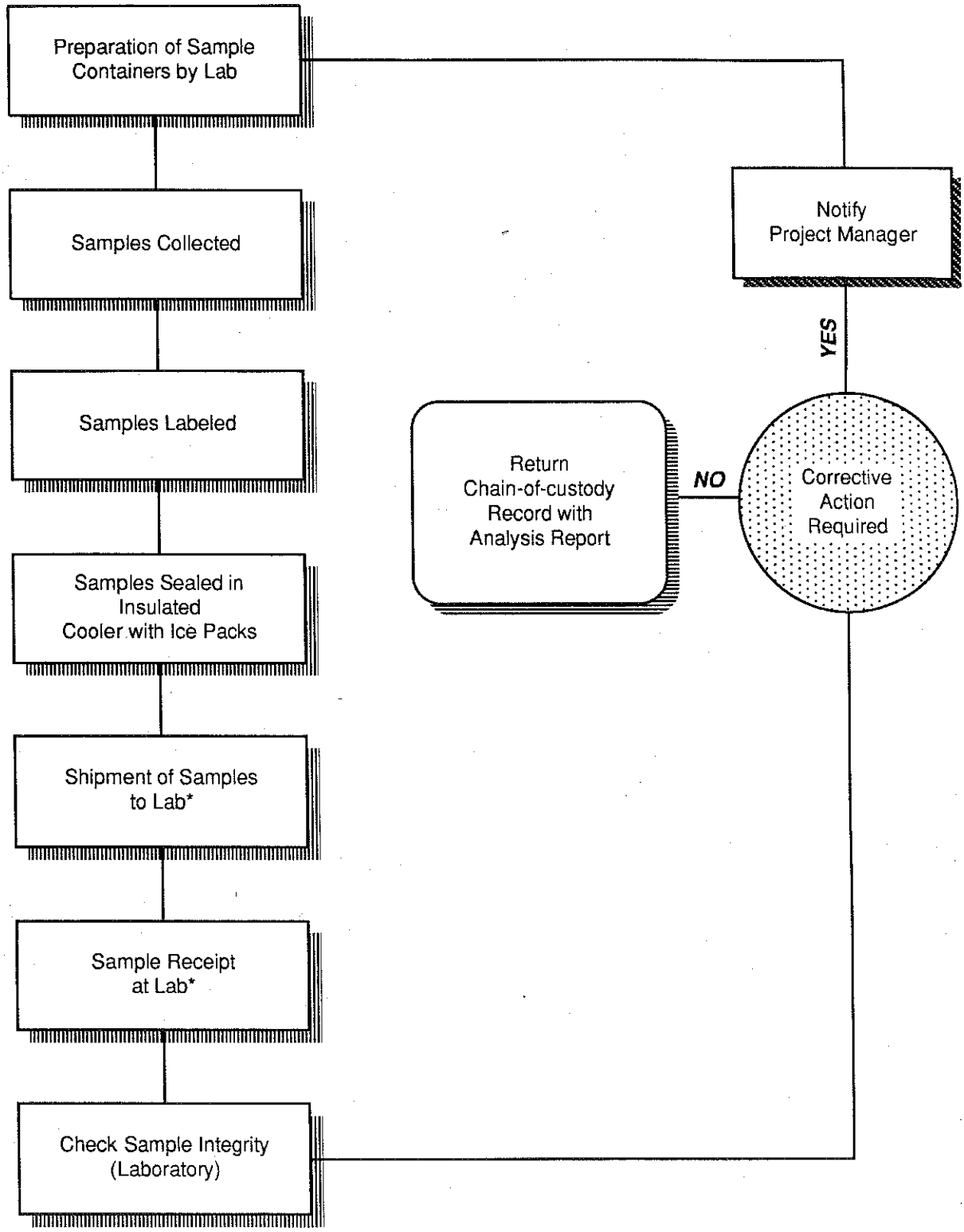
b. Welding and burning equipment will only be taken into a tank immediately prior to is use and must be removed from the tank immediately after the job is finished.

c. For all hot work inside a tank, a properly executed flame permit if needed must be displayed at the job site.

d. Standard welding and burning safety precautions will always be followed.

APPENDIX I-3

SAMPLE CHAIN-OF-CUSTODY PATH



RPM GRAHICS 27

*Requires sign-off on Chain-of-custody form.

Delco Chassis Division

Dayton, Ohio

APPENDIX I-3

SAMPLE CHAIN-OF-CUSTODY PATH

Dames & Moore
Job No. 299-198-122

APPENDIX I-4

FINANCIAL DEMONSTRATION FOR LIABLITY COVERAGE AND CLOSURE COSTS

General Motors Corporation

Mr. Warren N. Tyler, Director
Ohio Environmental Protection Agency
Post Office Box 1049
Columbus, Ohio 43215

Dear Mr. Tyler:

I am the Chief Financial Officer of General Motors Corporation, 3044 West Grand Boulevard, Detroit, Michigan 48202. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage and closure and/or post-closure care as specified in Chapters 3745-55 and 3745-66 of the Administrative Code.

The owner or operator identified above is the owner or operator of the following facilities for which liability coverage is being demonstrated through the financial test specified in Chapters 3745-55 and 3745-66 of the Administrative Code: See Attachment OH.

1. The owner or operator identified above owns or operates the following facilities for which financial assurance for closure or post-closure care is demonstrated through the financial test specified in Chapters 3745-55 or 3745-66 of the Administrative Code. The current closure and/or post-closure cost estimates covered by the test are shown for each facility: See Attachment OH.

2. The owner or operator identified above guarantees, through the corporate guarantee specified in Chapters 3745-55 and 3745-66 of the Administrative Code, the closure and post-closure care of the following facilities owned or operated by its subsidiaries. The current cost estimates for the closure or post-closure care so guaranteed are shown for each facility: None.

3. In states where U.S. EPA or a State so authorized is administrating the financial requirements of Subpart H of 40 CFR Parts 264 or 265, this owner or operator is demonstrating financial assurance for the closure or post-closure care of the following facilities through the use of a test equivalent or substantially equivalent to the financial test specified in Chapters 3745-55 and 3745-66 of the Administrative Code. The current closure and/or post-closure cost estimates covered by such a test are shown for each facility: See Attachments A and B.

4. The owner or operator identified above owns or operates the following hazardous waste management facilities for which financial assurance for closure or, if a disposal facility, post-closure care, is not demonstrated to the Director through the financial test or any other financial assurance mechanism specified in Chapters 3745-55 or 3745-66 of the Administrative Code. The current closure and/or post-closure cost estimates not covered by such financial assurance are shown for each facility: None.

9275f-26

This owner or operator is required to file a Form 10-K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this owner or operator ends on December 31. The figures, on the attached AlternativeII, for the following items marked with an asterisk are derived from this owner's or operator's independently audited, year-end financial statements for the latest completed fiscal year, ended December 31, 1988.

I hereby certify that the wording of this letter is identical to the wording specified in Paragraph (G) of Rule 3745-55-51 of the Administrative Code as such regulations were constituted on the date shown immediately below.

R. T. O'Connell
Executive Vice President
March 30, 1989

Alternative II
($ in Millions)

1.	Sum of current closure and post-closure cost estimates (total of all cost estimates listed above).....	$	82.4
2.	Amount of annual aggregate liability coverage to be demonstrated.....	$	8.0
3.	Sum of lines 1 and 2.....	$	90.4
4.	Current bond rating of most recent issuance and name of rating service.....Standard & Poors.....		AA-
5.	Date of issuance of bond.....		March 9, 1989
6.	Date of maturity of bond.....		March 9, 1992
*7.	Tangible net worth (if any portion of the closure or post-closure cost estimates is included in "total liabilities" on your financial statements you may add that portion to this line).....		30,279.9
*8.	Total assets in the U.S. (required only if less than 90% of assets are located in the U.S.).....		130,797.5

		YES	NO
9.	Is line 7 at least $10 million?.....	X	
10.	Is line 7 at least 6 times line 3?.....	X	
*11.	Are at least 90% of assets located in the U.S.? If not, complete line 12.....		X
12.	Is line 8 at least 6 times line 3?.....	X	

Deloitte
Haskins+Sells

1114 Avenue of the Americas
New York, New York 10036-7778
(212) 790-0500
International Telex: 66262
ITT Telex: 4995707

General Motors Corporation:

We have audited, in accordance with generally accepted auditing standards, the Consolidated Balance Sheet of General Motors Corporation (the "Corporation") and consolidated subsidiaries as of December 31, 1988 and the related Statements of Consolidated Income and Consolidated Cash Flows for the year then ended, and have issued our report thereon dated February 13, 1989. We have not performed any auditing procedures beyond the date of our report on the 1988 financial statements; accordingly, this report is based on our knowledge as of that date and should be read with that understanding.

At your request, we have performed the procedures enumerated below with respect to the accompanying letter from Mr. R. T. O'Connell to the Director, Ohio Environmental Protection Agency, dated March 30, 1989. It is understood that this report is solely for filing with the addressee of the accompanying letter, and is not to be used for any other purpose. The procedures that we performed are summarized as follows:

1. We compared the amount included in item 8 under the caption, Alternative II in the letter referred to above with the corresponding amount in the financial statements referred to in the first paragraph.

2. We recomputed from, or reconciled to, the financial statements referred to in the first paragraph the information included in items 7 and 11 under the caption Alternative II in the letter referred to above.

Because the procedures referred to in the preceding paragraph were not sufficient to constitute an audit made in accordance with generally accepted auditing standards, we do not express an opinion on any of the information or amounts listed under the caption Alternative II in the aforementioned letter. In performing the procedures referred to above, however, no matters came to our attention that caused us to believe that the information or amounts included in items 7, 8 and 11 should be adjusted.

Deloitte Haskins & Sells

March 30, 1989

EPA ID: OHD004201091
Facility Name: GMC FISHER GUIDE: ELYRIA
Mailing Address: P.O. BOX 4025
ELYRIA, OH 44035
Facility Location: 1400 LOWELL STREET, County: LORAIN
Current closure cost estimate: $3,532,200
Current post-closure cost estimate: $776,800

EPA ID: OHD017958604
Facility Name: GMC HARRISON RADIATOR: DAYTON
Mailing Address: P.O. BOX 824
DAYTON, OH 45401
Facility Location: 300 TAYLOR STREET, County: MONTGOMERY
Current closure cost estimate: $761,900
Current post-closure cost estimate: $12,600

EPA ID: OHD000817577
Facility Name: GMC HARRISON RADIATOR: MORAINE
Mailing Address: P.O. BOX 824
MORAINE, OH 45439
Facility Location: 3600 DRYDEN ROAD, County: MONTGOMERY
Current closure cost estimate: $10,050,000
Current post-closure cost estimate: $250,000

EPA ID: OHD000817023
Facility Name: GMC INLAND: DAYTON
Mailing Address: P.O. BOX 1224
DAYTON, OH 45417
Facility Location: 2701 HOME AVENUE, County: MONTGOMERY
Current closure cost estimate: $47,200

EPA ID: OHD097622336
Facility Name: GMC INLAND: EUCLID
Mailing Address: 20001 EUCLID AVE.
CLEVELAND, OH 44117
Facility Location: 20001 EUCLID AVENUE, County: CUYAHOGA
Current closure cost estimate: $21,000

CLOSURE PLAN

(For Storage Facilities in Existence Prior to November 19, 1980)

I. INTRODUCTION

Under the U.S. EPA regulations, 40 CFR Part 265, Subpart G, Sections 265.110 through 265.120, each facility which stores, treats, or disposes of hazardous wastes must have a Closure Plan on file. This Closure Plan has been prepared to cover the following facility:

1. EPA ID Number: OHD000817023

2. Owner's Name: General Motors Corporation
   Inland Division
   2701 Home Avenue
   Dayton, Ohio 45417

3. This Plan has been prepared by: Howard P. Jordan, Supervisor
   Environmental Engineering
   May 15, 1981

   This Plan has been revised by: Howard P. Jordan, Supervisor
   Environmental Engineering
   May 14, 1982

4. The attached chart shows the facilities for storage of hazardous wastes. See attached prints.

II. MAXIMUM WASTE INVENTORY

The following table shows the maximum quantity of wastes on hand at any one time:

Polyol	64	Drums
Flammable Solvents	6,000	Gallons
TDI	32	Drums
Cements, Paints, and Chlorinated Solvents	84	Drums
Miscellaneous	48	Drums

III. SCHEDULE FOR CLOSING

This facility does not have a definite closure date. The following schedule is open-ended. It lists the timetable for closure in terms of elapsed time subsequent to the time that EPA, or an EPA authorized state agency, has approved this Closure Plan (see Section 265.112(c)).

Day 1 - Plant termination of hazardous waste activity.

Day 10 - Contents of tanks removed to drums or bulk tankers for disposal.

Day 15 - All scrap solvents removed for disposal.

Day 18 - All underground tanks filled with aqueous detergent solution for removal of residue materials. A 5% solution of an alkali cleaner will be used.

Day 20-23 - The detergent solutions will be pumped out and transported via portable tanks to the offsite wastewater treatment facility.

Day 23-29 - The cleaned above and underground tanks will be rinsed with water to remove any balance of wash solution. This too will be transported via the portable tanks for treatment at the batch wastewater treatment facility. Samples of this rinse water will be analyzed by Chemical Lab. Rinsing will continue until the lab tests indicate the wastes are no longer hazardous under RCRA.

Day 30 - The trenching around the perimeter of the drum storage pad will be examined and any residue will be removed.

Day 30-40 - The empty above and underground tanks upon complete decontamination will be either:

a. Removed, or
b. Filled with dry sand and welded closed.

Day 40-50 - The soil immediately around the fill and drain lines will be removed and transported to a secure chemical landfill.

Day 50 - Closure should be complete.

Day 52-57 - The concrete pad will be steam cleaned and the residue removed to drums and transported offsite for disposal.

Day 55 - Certification of closure by independent registered professional engineer.

IV. COST ESTIMATES FOR CLOSURE (To be updated annually on May 15, 19__)

Prepared by: Howard P. Jordan, Supervisor
Environmental Engineering (Plant Engineering)

Dennis Puterbaugh, General Supervisor
Plant Accounting (Financial Department)

AREA	TOTAL COST
Drummed Waste	$12,800
Underground Oil Tank	12,000
Solvent Tank	6,000
Cleaning of Storage Pad	3,000
TOTAL	33,800